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THE

CINCINNATI  
MEDICAL NEWS.



J. A. THACKER, A. M., M. D.

CONTENTS.

	PAGE.
Responsibility Restricted by Insane Delusion.....	721
Catarrhal Deafness.....	742
Therapeutic Action of the Cinchona Alkaloids.....	746
Philadelphia County Medical Society.....	751
Cerebral Anatomy.....	755
A Case of Talipes Valgus—Quandary of Diagnosis—Experimental Therapeutics—Relief by Operation .....	763
Medical Society of the District of Columbia .....	766
The Cause of Consumption .....	768
Blood in Diagnosis .....	669
The Use of the Microspectroscope .....	770
Gleanings .....	771
Book Notices .....	779
Editorial .....	787

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## CAUTION.

The black scorched preparations, offered at low prices in the market, should be avoided, as giving physical evidence of undue use of heat in process of manufacture. Concerning the manufacture of malt extract, the German Pharmacopœia directs: "Digest for an hour, at a temperature not exceeding 65° C. (about 150° F.); then heat the mass to the boiling point, and strain immediately by expression. Evaporate the clear liquid as rapidly as possible, stirring constantly, to the consistency of a thick extract. Extract of malt is *yellowish brown, having an agreeable sweet taste. It should be preserved in a cool place.*"

Hence physicians should examine the preparations of malt, dispensed on prescriptions, as to appearance, odor and taste, for evidence as to the medicinal and nourishing value of the article. Glucose (grape sugar) is also used largely as an adulterant to cheapen the product.

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*We have for many years been supplying this element to the profession in the form of pills, which seem to obviate the objections to the other forms of administration now in use. They are absolutely protected from change by the sugar-coating, itself a powerful deoxidizing agent. They are easy and pleasant to administer, prompt in their action, and probably introduce the element in the best form for speedy absorption.*

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**Phosphorus, Quinine and Digitalis Comp.**

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# THE CINCINNATI MEDICAL NEWS.

VOL. XII. No. 143.  
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VOL. VIII. No. 11  
New Series.

## ORIGINAL CONTRIBUTIONS.

### Responsibility Restricted by Insane Delusion.

BY T. L. WRIGHT, M. D., BELLEFONTAINE, OHIO.

INSANE delusion: "When the hallucination or illusion is believed to have a positive existence, and this belief is not removed either by reflection or an appeal to the other senses, then the person is insane."—*Taylor, Med. Jurisp.*

Monomania is an affection of mind: "With false ideas on certain subjects out of which they can not be reasoned."—*Ibid.*

"When the partial derangement of the intellect is organized and systematized, it presents a desperate degree of tenacity. It is in vain to argue with the monomaniac, vain to endeavor to convince him of his errors. He resists, and shelters himself behind his convictions with unshaken confidence in their truth."—*M. Marce.*

"The consciousness of the patient becomes entirely changed. He never has any doubt of the reality of his erroneous opinions."—*M. Dugonet.*

"His delusions had become a fixed part of his mental being. As well attempt to change the course of the sun as to convince him of the errors of his convictions."—*Hammond.*

"The subjects of delusion have resolved their individuality into their madness; it is in their eyes an absolute truth; all demonstration and argument in oppositions to it are idle."—*Wharton and Stelle, Med. Jurisp.* 1873.

In an another place\* some general outlines of partial

\**Cincinnati Lancet and Clinic*, July 5-12, 1879.

insanity have been drawn, chiefly from a metaphysical standpoint.

It was claimed that the considerations there advanced warranted the conclusions—1st. That the partially insane should rightly be held responsible for their conduct; but 2d. That such responsibility should be always less in degree than that of minds not tainted with insanity.

It is believed that these conclusions are not generally entertained, if they are admitted at all. Yet they appear to have so much basis of experience, of philosophy and of expediency, that it seems right to pursue somewhat further the inquiry respecting the partial responsibility of the insane.

For this purpose the subject of INSANE DELUSION will receive attention; because those cases of the partially insane which have received the most attention in a legal aspect, as touching responsibility, were the acknowledged victims of insane delusion. Of such were the cases of Arnold, Bellingham, Hadfield, and McNaughton, together with other similar ones; and because, moreover, insane delusion is the form of madness, which is the basis of what is known as monomania, or partial insanity.

An attempt will be made to ascertain, not only the nature, but the power of insane delusion; also, to obtain an idea of the nature of its agency in determining conduct; and from this, to form some notion of the phases of motive and classifications of conduct which may be presumed to originate in, and flow from, that *mental content*, known as insane delusion.

The whole structure and character of the inquiry rest upon the notion that is held respecting the meaning of the term *insane delusion*; for in general it may be said, the soul and light of partial insanity *is*, insane delusion. In speaking of delusion, we have nothing to do with its common or vulgar meaning. The ordinary application of the term to eccentric or false beliefs, or chemical theories, does not concern us, and the reason will speedily appear.

Insane delusions may grow and fade away, and they may change from one subject to another, but they are always matters of irrevocable belief and of certainty. Neither appeals to reason nor the feelings, to right or expediency; in fact, no efforts of exterior minds can destroy or abridge, or change such delusions. By no means, whatever, except by means of the diseased condition of the

brain itself can any impression be made upon insane delusion. But by the changing force of disease, one delusion may be supplemented, with more or less swiftness, by some other one equally imperious and equally defiant of all mental efforts directed upon it from without. This is in general terms the character or description of *insane delusion*.

If possible, let us be more exact still. What shall we say is insane delusion?

In answering, let us first adopt the plan of exclusion.

Whatever is called an opinion, or belief, or sentiment, or judgment, or conviction, whether true or false, can not be a delusion in the sense of which we speak of it in connection with insanity.

It is not uncommon to define delusion in a court of law to be a false belief. This is erroneous. It is the common error of comparing an insane state of mind with a state of the healthy mind. It is wrongly using a condition of sanity to illustrate insanity.

It is not possible to talk of insane belief, or think of it rightly, on the same basis from which we contemplate belief in general. We can not classify insane delusions with the false notions of the ignorant and prejudiced to which the term delusion is ordinarily applied.

A little consideration will make this clear.

Every form of *rational* belief, or opinion, or judgment, or conviction, true or false, is merely the result or consequent of a preponderance of proof. As such, it is always open to new arguments and new lights, derived from reason or experience; and, consequently, is the subject of abrogation or modification. But the delusion of the insane is the subject of no vicissitudes of proof. It can not be changed or modified by reason. It is amenable only to the caprice of disease. It is independent of mental laws, and is entirely exterior to the limits of mental authority.

Every proposition then, or conclusion that can operate on the sound mind, must have its basis in some form of evidence or proof, either as touching its probability or value, or applicability.

It is desirable that this point concerning the tenure by which ideas possess the minds, should be expressed clearly and with authority. These ideas are the springs of motive; and the varying degree of freedom and re-

straint, which they permit to mental activity, measures the degree of responsibility attaching to mental acts.

The highest and latest authority upon this subject will be invoked, and as the subject is *proof, evidence, demonstration*, the proper source of information will be the principles laid down in legal authorities. Attention will therefore be directed to a recent synopsis of the most advanced legal doctrines pertaining to the point in discussion. This will be found in an essay, by Francis Wharton, LL. D., entitled *Recent Changes in Jurisprudence and Apologetics*, in the *Princeton Review*, of July, 1878.

What, then, is the nature of this proof, this evidence, which lies at the basis of rational motive? Wherein does it differ from the principles that lie at the bases of insane delusion, whence spring insane or irrational motives?

“All evidence,” says Wharton, “is circumstantial, and proof increases in weight in proportion to the cumulation of probabilities.”

“A probable conclusion is reached by a cumulation of proofs, no one of which by itself is sufficient to carry the case.”

“There is no evidence which is not dependent upon circumstances, and which is not therefore more or less circumstantial.”

“There can be no demonstration of facts; and the highest proof of facts is only a strong probability.”

“Facts are not the subject of demonstration, but are to be believed by us on proof of greater or less probability, *never arising to certainty*.”

“Perfect knowledge,” says Jevons, “alone can give certainty; and in nature perfect knowledge would be infinite knowledge, which is clearly beyond our capacity. We therefore have to content ourselves with partial knowledge—knowledge mingled with ignorance, producing doubt.”

So inexorable are these laws respecting the uncertainty of proof when applied to rational belief, that even physical science, capable as it is in many instances of absolute demonstration, loses its unalterable nature when applied to the conduct of men.

Prof. Wharton says: “The moment that physical sciences penetrate the atmosphere that encompasses *moral action*,

they are enveloped in the hazes of that atmosphere, and move tremulously, and occasionally with mistaken step. They can therefore only reach the results which, however probable, are open to doubt and contradiction."

Thus it is said: "A straight line is the shortest distance between the points it connects. The railroad between Baltimore and Washington is a straight line; therefore, it is the shortest distance between the points it connects."

This is all well as long as the dealing is with imaginary properties; "but the moment we assume the *fact* that the road between any two places is straight, then our conclusion can be only approximately correct."

In the same way the same author says: "Physical science, when it enters the atmosphere of moral action, finds itself subjected to the conditions of that atmosphere. It can not demonstrate; it will do well if it can prove."

Again Prof. Wharton remarks: "When even the most exact of physical sciences undertakes to enter into practical life, it is beset with the same incertitude that beset whatever appeals to our moral judgment. It can demonstrate things that *do not affect our action*. As to things that affect our action, the best it can do is to establish a preponderance of proof."

As an illustration of the impossibility of "demonstrating" any fact, even mathematically, the case of exact uniformity in the lines composing three signatures of the same person, was submitted to Prof. Pierce, of Cambridge. He decided that probabilities in *favor* of the authenticity of the three signatures were, as a unit, to two thousand six hundred and sixty-six millions of millions of millions of times against such a probability." To overthrow the force of this really correct *mathematical* demonstration of the impossibility of a fact, "certain signatures of John Quincy Adams and several others were exhibited, in which, even when greatly enlarged by photographs, there were many cases of coincidence far more exact than those to which Prof. Pierce assigned, through exact science, so high a degree of improbability." It is therefore impossible to demonstrate whether or not a series of lines coincide.

"The conclusion then is, that even by physical science, *facts as facts*, while capable of proof, are incapable of demonstration."

And finally we are told that, "we rise by induction to the general rule, that proof, not demonstration, is the condition of belief."

The truth of all this will more clearly appear from a right definition of the terms "demonstration" and "proof." What is demonstration? What is proof? or rather wherein do they differ?

"Demonstration is distinguished from proof in this, that of a demonstrated conclusion, the contradictory is inconceivable and impossible, while of a proved conclusion, the contradictory is always conceivable and possible."

We see a radical distinction between the healthy mind and the mind subject to delusion in this, that the healthy mind is swayed in its opinions, sentiments, and convictions, whether false or true, by reason, guided by evidence, and proof, and circumstance; while the partially insane are controlled, in opinion and conviction, by delusion, founded upon disease, and entirely disconnected with evidence, or proof, or circumstance.

It is worth while to note this fundamental difference, that is found between the basis of insanity and the basis of right reason, a little more in detail.

The delusions of the insane possess all the characteristics and powers of demonstration, because the holder of the delusion is incapable of conceiving that anything can be true which is contradictory to his delusion. On the other hand, the sound mind is incapable of entertaining any proposition or *principle of conduct* which possesses the quality of demonstration. It can not conceive of any motive of conduct which is not beset with doubts and uncertainties.

This principle of implacable opposition to all ideas of change or modification in sentiment, which is found in delusion, no matter what the mental or moral appliances may be which are put in opposition, is universal, and without exception. While the uncertainties of doubt, and possibilities of change in the principles which actuate the sound in mind, under the influence of testimony and proof, are also universal, and without exception.

We are met here with the fact that the partially insane habitually employ for the ruling force of their minds, in the performance of moral acts, principles which possess, to them, the nature and power of actual demonstration, while such a basis of conduct is impossible and incon-

ceivable to the sound mind. This consideration places the insane motive quite beyond the reach of the healthy understanding, and beyond the critical judgment of any one, however "expert" he may be, respecting the question of insanity in the simple aspect of physical disease.

We find a wide distinction, then, between the *power* of the moving moral and mental force; between the power of the *motive* in the sane and insane. In the former it is dominant, aggressive, unyielding; in the latter, soft and pliant and uncertain.

The strength and tenacity of purpose of one laboring under insane delusion, concerning the truth of which it is impossible for him to conceive the slightest doubt, must be greater than those resulting from the operation of principles always subject to change and uncertainty. The sane mind is capable of reviewing the grounds of its convictions; the insane mind is not. The motive for insane conduct is in its nature not only unchangeable, but irresistible. The object sought in insane manifestation is suggested and supplied by the delusion itself; it is the delusion; it is furnished by the disease in advance; it is never the subject of reason, and it can not be changed by proof. No alternatives in motive or conduct are possible. There is, therefore, *no power of choice*, and, consequently, no complete responsibility.

Thus it is plain that conduct springing from the driving force of delusion should be judged in a manner very different from conduct arising from the exercise of reason and evidence.

Is there anything unreasonable in the demand that the responsibility of the partially insane should always be abridged?

But it is claimed that delusion does not fill the whole mind, and that many acts of the partially insane have no connection with the delusion.

When we consider that these acts of the so-called sound faculties of the partially insane, for which certain writers claim that complete responsibility should be imposed, are really in their nature, some homicide or other atrocious breaches of law and morals, it would seem very probable that there is no such thing, at least amenable to proof, as a clear and sound understanding at any time in any person at all infected with lunacy.

In general terms, and *prima facie*, this looks very likely indeed.

But it will be proper to examine this doctrine, and inquire into its probable correctness. How does delusion take possession of a mind? Is it by consent of the lunatic? Can he help it?

The delusion of insanity arises in the mind by reason of some disease of the brain. Springing thus into existence unbidden and by the unconscious operation of disease, the mind is not responsible for its presence or its character. The sane mind has had nothing to do in molding its form, or determining its nature. In fact, the mind in which it finds lodgment is as innocent, and is as irresponsible for it as the mind of an entirely different person. Insane delusion is merely a symptom of brain disease. While the delusion thus implanted is weak and faint, the mind may wrestle with it, and reason against it. But in vain. While the brain disease lasts the delusion is beyond the power of reason.

It is difficult, if not impossible, for a sound understanding to clearly comprehend this state of facts. Delusion is too often thought of in the light of simple false belief. Under the influence of such a conception, the ordinary mind is apt to apply to the mental state of the lunatic such tests as it knows and feels, concerning merely false and obstinate belief in general. The fallacy and injustice of this must appear on a little consideration.

Belief in the sound mind does not come unbidden and unquestioned into the understanding. Its origin is distinctly known; its vicissitudes and uncertainties have been considered; and the methods of change and avenues of complete escape from such belief are within the knowledge and power of the mind.

Not so with that kind of belief, or rather conclusion, called insane delusion. Its origin is unknown. It is found an unwelcome intruder. Often it is referred to superhuman agency, for the agency of right reason had no part in its production. It is the product of disease; it is pathological not physiological.

When we consider that the acts of the partially insane have their origin in a pathological state, and the acts of the sound mind flow, not from affliction and woe, but arise in harmony with reason, free and untrammelled, the most precious gift of Heaven, does it not seem right that some

abatement in the requirements of responsibility should be accorded to the partially insane?

When it is considered, also, that a brain suffering from disease may become the seat of so strong and unnatural a mental state as delusion, is it not probable that such a brain is not a trustworthy basis for the performance of any mental act, even though apparently not related to the prevailing delusion? Does not the presence of delusion thus controlling the mind, in consequence of disease, raise a doubt as to the average perfection of the mental functions associated with such a brain under all circumstances? Should there not be required of the partially insane a diminished or dubious responsibility in all cases?

Whatever may be the real motive which actuates a partial lunatic in the performance of an act, the possibility of clearly ascertaining and proving that motive can not be reached. There is no such thing as an "expert" respecting insane, or partially insane motive. The application of the tests of logic, and even of professional experience, in a dogmatic manner, to the unraveling of insane ideas, and comparing these ideas with the relations which right reason bears to conduct, is simply presumption, and a proof of ignorance. It is often done, however, to the disaster of the helpless lunatic, and the reproach of civilization.

In illustration of the difficulty that a mere observer will experience in perceiving an insane motive, and the impossibility of giving reliable testimony respecting such motive, attention will be directed to the *dual existence of the partially insane*.

Muller remarks, speaking of phantasms in general, "images from internal causes mingle themselves with those of real objects; it may happen that the images of external objects are seen through the phantasms as through a veil."

This will serve as a key to open to view one of the mental conditions of the partially insane. Take it for granted that upon certain topics the lunatic is clear and responsible in mind; dismiss for the moment the idea that it is absurd to suppose a partial lunatic can be perfectly sane and without any hidden weakness under favored circumstances, and even then the double life of the monomaniac must give rise to such a condition of mind as will be beyond the reach of credible evidence and proof.

The strongest conclusion of the monomaniac is, of course, his delusion. But if the delusion is weak, although it is still the leading idea in the mind, the life of ordinary relation and routine, constantly appealing to the senses, keeps the mind apparently in the ruts of common life and common sense. But if the insane idea is very strong, these appeals to the senses become unheeded, and the lunatic gives himself up to the dominion of his delusion.

It thus becomes apparent how the monomaniac is endowed with a double life, and even a double mind; a mind, actuated at one time by the force of demonstration, and again, at another time, by the incentives of proof and evidence. But these two lives are not held in equal esteem by the madman. One life, that of delusion, is to him real, important, decisive, and the other is endured with irksome courtesy, and under protest, as partaking only of the common nature of the world at large, with its rules and customs and requirements.

It is not always possible to tell with certainty where the insane mind stands with regard to these two worlds of existence. The lunatic frequently conceals his delusion for a time, and when it bursts forth, that is the first evidence of the existence of what was really present, it may be, long before.

How can a witness tell whether such an outburst is insanity or mere rage?

At another time the monomaniac may conceal his delusion, with an object in view that is related to the delusion. He may craftily do so, in order that he may secure some coveted opportunity to gratify his insane proclivity; to wreak his violence upon some victim beguiled into security.

How can a witness distinguish between this insane craft and right reason? This is the very midnight of insanity, and yet how can any one, merely from seeing for a short time a lunatic in such a state, distinguish it from the noon-day of reason?

This kind of cunning is really very common; it is not exceptional. To "conceal a delusion" is one of the commonest expressions; but to *control* a delusion implies something more.

"Can a monomaniac," says Dr. Hammond, "control the paroxysm of delirium to which he is subject?"

To this interrogation I unhesitatingly answer in the affirmative.

"They have sometimes such a high degree of control over their minds that they will affect to renounce their opinions when they have any particular purpose to carry out, with which their opinions appear to be inconsistent. They dissemble their resentment until a favorable opportunity occurs of gratifying their revenge. This is so common that those around them have a phrase for it, calling it '*stifling their disorder.*'" So says Haslam.

Detailed examples of such suppression of insane delusion for a purpose are numerous. For example:

"An Essex farmer dissembled his madness for over a month, managing himself upon the whole with admirable address. His object was to obtain a decision from a specialist in lunacy that he was of sound mind. At length an opinion adverse to his wishes was made known to him, when he suddenly poured forth a torrent of abuse, and he continued in a state of unceasing fury for over fifteen months."

"The power of concealing delusions," says Winslow, "which confessed and even dangerous lunatics have been known to possess, have often astonished persons not fully acquainted with the subtle phenomena of insanity."

Another case in point from the same author will suffice for the present purpose. A young gentleman wished to obtain his discharge from an asylum. He had attempted to murder his sister under the delusion that she had interfered in his matrimonial designs. To effect his release, he professed to perceive that he had labored under a delusion, but that it had altogether departed. He said he wished to see his dear sister to ask her pardon. He seemed to be restored to his right mind, except in some very trifling particulars. To more fully study his case, the physician placed himself in a position where he could observe the patient without his own presence being known. He was reading; presently he approached a looking-glass. He gazed fixedly at himself a few moments, and then began a series of malignant grins. Then, clenching his fists, he walked about in an agitated manner, exclaiming, "The miscreant! the viper! the snake in the grass! I'll do for her on the first opportunity!" Shortly afterward, perceiving that he could not effect his purpose, he abandoned his disguise, and his insanity was apparent to every one.

The greater power controls the less. When delusion so dominates reason as to enlist it in the furtherance of its own insane tendency, such exhibition of the reflective powers is not evidence of even temporary sanity. The end of such reason is found in the delusion moving it. It is not free; it does not consider alternatives; it is incapable of choice, for the insane desire stands for a choice already provided.

No witness can truthfully testify respecting the state of mind or motive of a monomaniac. It may look like a sound understanding, but it may really be a sadly shattered one. The voice may be the voice of Jacob, but the hands are often the hands of Esau.

Again, as a stumbling-block to testimony as to motive, comes the old doctrine of lucid intervals. While there are many causes producing *remission* in the activity of insane delusion, it is universally admitted now that a true lucid intent in the insane mind never takes place. The disease upon which monomania depends, obeys the laws of periodicity, which not only distinguish all diseases, but in fact belong to the constitution of the healthy frame itself. While some of the insane remissions are dependent upon local causes, as exhaustion from the violence of the disease itself, it is also true that in monomania there is often observed a certain regularity of the exacerbations of the mental trouble, especially at intervals of twenty to thirty days. The interposition of such an interval has caused lunacy to be attributed to influences derived from the moon.

That certain periodical physical conditions are consequent upon disturbances in the equilibrium of the magnetic medium, caused by astronomical changes, is believed by many to be true. It is not, perhaps, venturing too much to suggest that the apparent monthly exacerbations in lunacy so frequently observed, are connected with changes in the magnetic state, induced by the rotation of the *sun* on his own axis about every twenty-five or twenty-six days. That the face of the sun is not homogeneous is well known. As he presents different aspects of his surface to us, modifications corresponding therewith, may be effected in the magnetic state which seriously impress the irresistible condition of a diseased brain.

At any rate, these various states of quiescence and exacerbation in the condition of lunacy; sound states under

the temporary or apparent control of the madman; others entirely beyond his knowledge or power combine to render the opinion of even an expert on *insane disease*, of little, or, at best, doubtful weight, respecting the state of the mind and motive of a monomaniac at any specified point of time. Such facts appear to justify the claim that in righteousness and mercy the responsibility of the partially insane should never rise to an equality with that of the sound mind.

In regard to the question of responsibility of the insane, Lord Justice Bromwell says: "If you can find out what man's mind is accessible to the influence of fear, you can find out the man you should punish."

Here is again exhibited the fallacy of estimating the motives, the guiding principles of men laboring under insane delusion, by the tests that are commonly applied to sound minds. So far as this *dictum* shows upon its face, it would seem that his lordship considered that every man that is susceptible to fear to be in his right mind. But his own conduct upon the bench shows that, in his opinion, persons partially insane should be subjected to the same responsibilities that attach to sanity, if they are susceptible to the impression of fear.

A monomaniac may be restrained by fear, or some motive simulating fear, as has been before pointed out, so that he may have opportunity to accomplish the promptings of delusion.

Take for an illustration of the influence of fear on conduct, a state of mind as nearly related to delusion, as we can conceive a sound mind to approach toward unsoundness. Consider the conduct of a mind imbued with a blind, but conscientious faith. We can conceive of such a person giving way for a time to the demands of violence and unreason, sustained by the conscious rectitude of his principles and conduct; but he can not be supposed to do this without a burning indignation, mingled, no doubt, with self-reproach; for he is alive to the wickedness and indignity to which he is subjected. Nor can it be imagined that such a man, imbued with a conscientious belief, should always submit to such indignities. The time will come when he will resist, will rebel, will die rather than submit to further wrong and humiliation.

So it must be in delusion. The knowledge of the unanimity of sane acts may for a time calm the activity of the

delusion. The behests of custom, the threats of power, and the requirements of authority, may and often do deter from the consummation of insane desires. But they can not always do so. The superior and incontrollable motive will at length assert itself over all opposition, and the "sacrifice," or the "offering" will at last be made in violence and horror.

In such cases it does not follow that because restraint may be effected at certain times, it can always be effected. It is not true that because a mind oppressed by delusion has been restrained by fear at one time it can always be so restrained, and certainly there is no ground for the doctrine that in case of failure to so restrain the unsound mind, it should incur the responsibility of an unquestioned understanding.

This doctrine of the distinguished English lawyer is not true. Evidence can not possibly exist which will decide whether at some particular time a ruined suffering from delusion could or could not be actuated by the emotion of fear.

Such facts tend to show that instead of seizing upon some of the isolated symptoms and consequences of delusion, and drawing from them separate and different conclusions respecting the probable character of motive, and, therefore, different conclusions regarding the responsibility attending insane acts, it is better to compare the acts of delusion with the intrinsic nature of the state of mind characterized by delusion, and especially not with some ideal conditions of sound motive. It will then be apparent that there exists an intimate family relationship between the various and seemingly independent products of insane delusion. It will be perceived, also, that such insane acts bear such constant relationship to each other in their origins and methods that they are intimately connected together in the vital quality of responsibility; that is, the diverse results of delusion are closely affiliated one with another in the quality of a common origin.

Perhaps an illustration or two, based upon this plan of associating insane conduct with the nature of delusion, of comparing effect with cause, of viewing offspring, through parentage, may be of interest.

"It is the setting and keeping the mind in motion toward an object plainly conceived that constitutes the mental part of an act."

This proposition of Baron Bromwell, on the Dove trial, and taken from Dr. Bucknill's Lumleian Lectures, is supposed to cover a vast field of insane motive. The sanity of motive and the character of responsibility, it is inferred, may be tested by the more or less direct mental effort displayed in accomplishing a purpose. If the conclusion is the evident result of a series of persistent mental efforts, uniformly tending to such conclusion, the responsibility of that mind is presumed to be complete.

Dr. Bucknill himself declares that "an uncontrollable propensity, which accidental circumstances, or the fear of detection constantly controls, is an inconceivable state of mind."

It so happens that insane delusion is an "inconceivable state of mind," but, like a good many other inconceivable conditions in the universe, it is not necessarily an impossible state of mind.

It is difficult to add anything to the doctrines already advanced in this paper, adverse to these assertions, and the influences drawn from them.

Bellingham believed his private grievances were national wrongs. As he could not get an investigation in any other way, he killed a government official, in order to compel an inquiry into his case. He was successful. No man of humanity and learning would contend that this person's responsibility was unimpaired, yet his mind acted with a purpose, and in a direct manner also.

Hadfield shot at the king, not intending to kill, but with the object of securing his own execution as a "sacrifice" for mankind. His act was such as showed a direct mental effort intended to secure a desired result, and adequate, in ordinary circumstances, to gain his object.

While it is claimed that the reasoning was *connected* in these and other similar instances, it is not true that the reasoning was sound. Insane reasoning is like the parade and ostentation of a drunken man, who desires to conceal his condition. His elaboration betrays him.

Munk was tired of his "sad life," and, wishing to get rid of it, contemplated the killing of the Governor General of Finland. According to his own account, he knew that the man who had tried to assassinate the King of Prussia was executed. He was not capable of independent action. Instead of killing the first inoffensive person he met, his mind was tied to the plan of another, and his only

thought was that, as Hœdel had attempted the life of a potentate and perished, his right plan was also to attempt the life of a similar personage to achieve for himself the fate that overtook Hœdel.

It is not necessary to add anything further on this point. A continuous and successful chain of mental efforts directed to the achievement of any act does not imply of necessity that a mind is sound.

There is one quality about delusion which is probably an essential element in its nature, and, in part, accounts for that nature. The partially insane person, who remarked that he could not trust himself, because he found that he often had taken things or conclusions for granted, which, in fact, had not any existence, and had not been consummated, and he had, therefore, often been led into erroneous conduct, has a bearing upon the idea now coming under consideration.

It is a mental state that has been called *incomprehension*. It is the state of mind exhibited by the person who rolled a lot of beer-kegs to his own premises, under the delusion that they, and the brewery to which they belonged, were his own property.

A man who died in the Dayton, Ohio, Asylum, dreadfully insane, having torn and eaten portions of his arm with his own teeth, was first detected in delusion through taking and claiming as his own a rifled gun which pleased his fancy.

Such persons know right from wrong in the abstract, and may have an honest abhorrence of theft, but by reason of incapacity to really observe anything disconnected with simple sensation, making no note of the legitimate surroundings and boundaries of their acts, they imagine that whatever pleases the mind is the property of the mind. This mental state seems to be the effect of the want of power to fix the attention upon conduct. But it also implies defects in other mental faculties. When the gun was observed, instantly, without reasoning, without the ordinary process of comparison and judgment, the mind under stress of delusion, alone and irrational, appropriated the ownership.

There seems to be, even in a condition of mental healthfulness, a slovenly habit of half using the faculties; or, possibly, it might be called of using *half faculties*.

The ordinary speech used in conversation, if written down with exactness, would, with difficulty, be recognized as English. In a way analogous, the faculties of the mind are often used in a manner very different from the full and correct style in which their operations are understood in metaphysical science. And in this matter of delusion, particularly as it is exhibited in the symptoms called *incomprehension*, there is perceived to be a defective use of some of the more obtrusive faculties, while a similar failure may be inferred respecting the whole mind, "There is no such thing," says Reynolds, "as a sound and unsound mind co-existing in the same individual."

In the mental state above described, *will* becomes *desire*, and the mental conclusion is in accordance with desire, not will. The gun is perceived. But will, which directs attention, not only to objects, but to every separate process and step in reasoning; choosing certain data for comparison and judgment, and rejecting other data, performs none of these functions in a proper manner. The judgment is not interrogated, and, without any attempt or power of choice, the mind concludes upon the ownership of the gun. The determination of the question of ownership is here made without any process of choosing between alternatives. Alternatives have not been presented to the will, because reason has not been employed in forming conclusions.

"Desire is a blind and fatal tendency to act," says Sir Wm. Hamilton. It is blind, because it is not associated with intelligence; and fatal, because its determination can be but one thing, and is, therefore, not free.

When the will is diseased, as it is called in insanity, there is not will at all, but a *pseudo* faculty—a counterfeit of will—and something entirely different from will, and inferior to it. There is at the same time a corresponding debasement of the intrinsic qualities of all the mental faculties.

Of course there should be here immunity from responsibility; and yet, if the attention of the lunatic is sharply directed to the subject, the knowledge of right and wrong will be found in perfection, and the expression of that knowledge will be in clear terms.

Here is exhibited, to some extent, the manner in which

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\*Legal Tests of Insanity. Page 51.

delusions are implanted in the mind. Being established in a pathological condition of the brain, by a process not in accordance with reason, it is impossible to impress or change them by the appliances of reason.

It appears, therefore, that there are anomalies and contradictions in our practical jurisprudence respecting the responsibility of the partially insane. The principles of such responsibility, as laid down by authority are not satisfactory. One authority claims that a knowledge of right from wrong, either in general or in reference to some particular act, is the true test of responsibility in the monomaniac. Another places the test in the capacity or strength of will to refrain from an unlawful act. "Could he help it?" is the Shibboleth. Another makes the criterion of insane responsibility to lie in the fact, or otherwise, of the impressibility of the lunatic by the emotion of fear. And still another is certain that if the mind can exert its faculties in an unbroken chain of sequences toward the consummation of a criminal act, that mind is responsible. And these tests multiply, and must continue to do so, not because they may not be good tests of responsibility, but because they are utterly inapplicable by rational methods to irrational motives.

It is worthy of remark that this question of responsibility for crime, as touching the insane, is not confined to any idea of partial or abridged responsibility. The partially insane are supposed to be absolutely responsible, or not responsible in any degree whatever. The decision sought is often whether the lunatic shall die by the hand of the public executioner, or shall go practically free. And this decision usually does not rest upon a question of fact, for generally the facts are admitted; but it rests upon a preponderance of proof offered in evidence, from the mouths of witnesses who have no way of telling the motives; and the cranky, crazy, imbecile springs of the motives which led to the conduct under investigation; the whole being a mere theoretical, contradictory, and mischievous attempt to fathom the profound abyss of metaphysics as it relates to insanity. The decision is not, as before intimated, a question of fact or of guilt, but of hallucination, of delusion, and of the double life of the monomaniac. This double life, in itself, is impenetrable to reason. It is wholly unnatural and unlike anything that can be experienced by the same

mind, a commingling of delusions and rational ideas, in a manner that is beyond the ken of reason or of testimony.

When a question so momentous as the responsibility of the monomaniac is considered in a manner that must end in a verdict of complete vindication or entire guilt, and that, too, by minds which can not apply the methods of *proof* to the methods of *demonstration* (which really sway the lunatic), there is a liability that some terrible mistake will be made. Such mistakes have been repeatedly made. "I am satisfied," says Rev. Sydney Godolphin Osborne, "that we have hanged many insane people, and that we have let off on the ground of insanity very many who never were anything but sane." And Dr. Bucknill, by no means lenient with the partially insane, says, "Many criminal lunatics have been acquitted whose delusions have not been discovered until after their trial, and I fear some have been condemned whose delusions have never been discovered at all." It is the province of the expert to testify whether the patient is insane; not what his delusions are; not necessarily that he has delusions; certainly not what his motives were at any particular time. Upon that testimony, elicited by direct examination of the excused, and not by hypothetical questions, the court and jury, upon a general survey of the logic of the attending circumstances, can find something like an approximation to a just conclusion. It is greatly to be wished that the public could see in its true light the crime of executing a lunatic for any cause. It is murder, under the authority of law, to fittingly characterize which is beyond the power of execution.

Hitherto, while insisting upon the partial responsibility of the monomaniac, the drift of thought has been mainly toward the antagonism of the principles which demand the penalties of a sound mind in a large number of the criminally insane. While it has been insisted that the partially insane are partially responsible, the greater part of the argument has been directed against the doctrine of entire responsibility in the partially insane.

As an illustration of the unsteady and dubious manner in which the subject of insane responsibility is treated in actual practice by the very highest authorities that can be found, the case of one Treadway may be cited. This man killed a person named Collins. He was an epileptic. He was supposed to have committed the homicide under

the influence of disappointment and rage. He was convicted and sentenced to be executed. For some reason his case was reviewed by a commission of lunacy; one of this committee was the president of the Royal College of Physicians in London, another was Dr. Chrichton Brown. This commission decided that the verdict was *right*. They decided that, as the prisoner had a *fit* in the dock, he might have another on the scaffold, "an occurrence which might produce a mischievous impression on the mind of the public," it would be *inexpedient* to carry out the sentence. They decided in effect also, that it was wrong to carry out the sentence because "the responsibility of an epileptic might be diminished."

This disposition of the case is indorsed by Dr. Bucknill "as wise and merciful." Their final decision was right, but the reasons for it read very queerly. So much for medical experts.

Let us now see how the legal luminaries, on the subject of insane motive, dissipate the darkness supposed to surround that question. Take the case of Wm. Dove who murdered his wife. The evidence on trial is not at hand, and it has nothing to do with the present purpose. It is only necessary to quote the language of the judge, to find the principles which decided upon the life or death of the insane criminal. This judge was the eminent Baron Bramwell, who found out that the man you could scare so bad that he would refrain from wrong-doing, was the man you should punish.

"It is impossible to resist the conclusion," says the Baron, "that Dove was not a sane man. He was from intancy predisposed to madness. Symptoms of madness displayed themselves at intervals through his whole life. His language and conduct at times could not be accounted for on any common principles of action. But," says the Judge, "did he know he was doing wrong? Could he help it?" They asked a question that nobody could answer, and decided it in the affirmative. They hung their man.

But while the lunatic has rights which should be recognized, yet the rights of all, sane and insane, and the safety of society, are in this question, and should be secured.

There is no doubt that the partially insane are amenable to discipline, and that they can "*stifle their disorder*,"

at least in the immediate and sensible presence of a strong incentive to do so. It is true this can not be done with the average ease and comfort of the sound mind. And true, therefore, that the penalties of the sound mind should not be exacted when an offense is committed by an insane criminal. The partially insane then can restrain their conduct in some degree. Experience proves this fact. The partially insane has partial intelligence. We do not speak of his power "to use his intelligence." This is a phrase invented to bolster the doctrine that the responsibility of partial insanity depends, not upon knowledge, but upon power. "Intelligence and will reign together or retreat in company," says Prof. Calderwood, LL. D., of Edinburgh, in his essay on the "Will Problem." When there is no intelligence, there is no will; simply desire, impulse, appetite, or whatever that motive may be called, which is "blind and fatal," admitting no alternatives or power of choice. Therefore the hackneyed phrase, "power to use intelligence," is inadmissible, and will be rejected. Having some intelligence, the partially insane are partially responsible. No one can tell to what precise extent; but while it is a reality, it is never the complete responsibility of the sound mind. This much is inferred from the known characteristics of insane delusion. There is another element besides abstract right which enters largely into the formation and constitution of every highly artificial and civilized society. That is, the element or principle of expediency. Would it not be expedient, as well as right, to impose upon all partially insane persons some degree of responsibility? As it is now, every partial lunatic, in the contemplation of crime, has a hope of escape upon the ground of insanity. He knows well that, whatever atrocity he may commit, there is a chance that he may go free. In fact, it is a principle of insane nature, that unless the punishment for an offense is certain and impending, the prospect of punishment has no restraining terrors.\*

It would then appear to be highly expedient that the partially insane should be brought to understand that there is no immunity for crime, upon the plea of insanity; that all the partially insane are partially responsible; and that punishment will follow upon proof of crime, with

\* Bucknill, 3d Lumlein Lecture.

no hope of escape on account of disease. No one can doubt but such a knowledge possessed by the monomaniac would greatly diminish the number of crimes resulting from the indulgence of insane proclivities.

It is no uncommon thing to see elaborate plans, and preparations, and suggestions, and innuendoes, in the conduct of the monomaniac, in order to prepare a defense after the completion of some unlawful act which he contemplates. A full knowledge that this can not avail in escaping severe punishment will not only deter the lunatic from committing crime, but it will also exert a wholesome restraint upon criminals who feign, or intend to feign insanity, as a means of escape from the legal consequences of crime.

It seems, therefore, that it is not only right that the monomaniac should be held in some degree of responsibility for crime, but that it is expedient also.

The conclusions from the preceding analysis of insane delusion are as follows:

1. The partially insane should be held responsible for crime.
2. The degree of responsibility attaching to the acts of the monomaniac is less than that which belongs to the sound mind.
3. Capital punishment should never be visited upon one infected with any taint of lunacy.

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### Catarrhal Deafness.

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IT is not our intention, in the present article, to give a dissertation upon the various forms of deafness from catarrhal causes, but to speak of a simple case of this form, which, owing to a congenital malformation, was treated in a different manner than the ordinary course that is pursued in such cases. When we say different, we refer to the way in which the application was made, and not the application *per se*. The usual method pursued in treating the non-suppurative form of catarrhal deafness, especially when concomitant with tinnitus aurium, is by forcing air through the eustachian tube into the cavity of the tympanum. The air may be impregnated, or it may be used

in its common form. The two methods in common use at the present time for inflating the drum, are, first, by means of the eustachian catheter and air bag, and, second, Politzer's method. In the first method the catheter is passed through the inferior portion of the nasal cavity until the beak arrives at the posterior portion of the nasal septum, when it is rotated outward into the pharyngeal orifice of the eustachian tube. Then the current of air is directed through it by means of the air bag. This is the usual method of inflating the cavity of the tympanum by means of the catheter, but not the only way as will be seen in the report of the following case:

Mrs. P— is a lady forty-three years old, of medium height and size. On the 16th of September she presented herself to be treated for deafness. From her I obtained the following history; but I should mention first that she has a congenital deformity, consisting of a cleft palate. This makes it somewhat difficult to understand her statements, as the sound, instead of being directed forward through the mouth, passes up into the nasal cavity and through the nostrils, producing a hollow, imperfectly articulated, unpleasant sound. When she was twelve or fourteen years old, she had trouble with her right ear, consisting of pain, fullness and tinnitus aurium followed by a discharge. This discharge continued for some time, but finally ceased. The treatment consisted chiefly in keeping the ear well cleansed, but she used some kind of liquid that she put into the external auditory canal. Cotton was placed in the mouth of the canal to protect the inflamed portions from the vicissitudes of the atmosphere. Ever since this time she has been unable to hear any sound, unless very loud, with this ear. She is troubled with a sensation of fullness, or, as she expressed it, as if her ear was "stuffed up." She thinks a little wad of cotton has, in some manner, been pushed down upon the membrane tympani, and that that is the cause of this peculiar and unnatural sensation.

Two years ago she caught cold, and had severe pain in the left ear, together with tinnitus aurium. Ever since that time she has occasionally had pain in this ear, and the hearing power has been gradually getting worse. The tinnitus, which at first was periodical and not very marked, has become constant, and much more annoying.

On examination, the internal portion of the right audi-

tory canal was found to be contracted. The membrane tympanus was much smaller than its fellow, and had a much darker tint. It was distorted, thickened, and finely granular. The triangular spot of light could not be seen. The internal portions of the canal were normal in color. The left membrane tympani was considerably depressed. The transparency appeared normal, but the yellow spot was very small. In this ear she had a sensation of fullness and tinnitus, but it was not so marked as in the right ear. The watch could be heard three inches from the left auricle, but could not be heard at all with the right.

There was a general diffuse congestion of the mucous membrane of the throat and nasal cavity. On the posterior wall of the pharynx, just above the plane of the palate, there existed a circle of white lines, converging in a curved manner to a common center. This center consisted of a grayish white substance that resembled an eschar. There was no history that would indicate that she ever had any trouble existing at this point. This spot appeared to be the nucleus, around and over which thick tenacious mucus would collect. When it had gathered in sufficient quantity it would pass down the mucous membrane into the fauces. Its presence there would cause irritation, when it would be expectorated by coughing.

The treatment in this case was partly by inflation, but not in the ordinary method, and this is what we wish to speak about. Instead of putting the catheter in the nose, it was placed in the mouth. By the patient slightly reclining her head backward and opening her mouth, a complete view of the mouths of the eustachian tubes could be obtained by the aid of a forehead mirror. As both the soft and hard palate were absent, we could obtain a good view of the posterior wall of the fauces on upward to the roof of the nasal cavities, or, more probably, as in this case, there was no division, I should say cavity. The prominences caused by the turbinated bones were plainly visible. The vomer existed only as a septum in that portion of the nose which forms the external prominence on the face. It did not extend backward into the cavity. The mouth of the left eustachian tube was slightly different in formation from its fellow. The opening was oblique, inclining at an angle of about thirty five degrees from a vertical line dropped from the superior and posterior margin of the orifice. Running at the same angle the poste-

rior portion of the opening was guarded by a cartilaginous column. This column began above and posterior to the upper margin of the mouth of the tube, and extended downward and forward. It arose out of the side of the nasal cavity gradually, and in the same manner was lost in it again. Its side formed the base by which it was connected with the nasal wall. This column was about thirty millimeters in length, ten millimeters broad at its base, and *en rilievo* about seven millimeters. There was a similar prominence in front, but not so long nor so large. Just posterior to the first prominence, at the point where the mucous membrane makes the turn from the fauces to the nasal cavity, there were four cell-like openings.

There was a similar condition existing on the right side, except that instead of a prominence in front of the opening, the mucous membrane was folded on itself, and looked more like a wing standing out at that point as a guard to the mouth of the tube. The entrance to both tubes was by a rounded lip margin that offered considerable resistance to the instrument. The orifice of the tubes were slightly separated, but frequently when an instrument was introduced there would be a spasm of the tubal muscles, and the instrument tightly grasped. In a short time the muscles would relax, and the instrument would drop out by its own weight. During the muscular spasm it required some force to draw it away. If the mouth of the tube was irritated by touching and rubbing it with the point of the instrument, there would be a contraction of the muscles sufficient to prevent the air from passing up to the cavity of the even with the beak of the catheter placed in the extremity of the tube.

The orifice or pharyngeal extremities of the tube were not round, but like a compressed elongated 0. They were about five millimeters in length. In the center the margins on the right side were separated nearly two millimeters, while on the left they were in contact in the center, but separated on either side of this point about one millimeter. On the right side, posterior to the mouth of the tube, and corresponding in position and number to those on the left, were four openings in the mucous membrane, resembling the orifice of small canals. One of the openings on this side was sufficiently large to admit the point of the catheter. Into this the catheter was inserted, and when air was forced through it the diagnostic tube

revealed a sound as if air was passing into the cavity of the tympanum through an opening. This inflation did not cause any more unpleasantness than when the catheter was inserted into the eustachian tube. By inflation through the eustachian tubes the air passed into the middle ear very freely and with considerable force.

The patient, on account of her peculiar situation and circumstances, only received six treatments, but stated that from these she had derived considerable benefit, as the fullness and tinnitus had disappeared from the left ear, and that with it she heard much better.

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## SELECTIONS.

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### Therapeutic Action of the Cinchona Alkaloids.

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BY J. T. M'COLGAN, M. D., OF CELINA, TENN.

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THERE are at the present time but few practicing physicians who, if asked the therapeutic properties of quinine and its kindred cinchona alkaloids, would unhesitatingly reply, "Tonic and antiperiodic." Further than this few men care to pursue any investigation; satisfied with the beneficial results obtained from it in the "so-called" periodic diseases, they are willing to be thankful for such marvelous success, and like honest Sancho, "bid God bless the giver, nor look the gift-horse in the mouth." Now we do not propose to instruct the profession at large on this or any other subject, for we are not so egotistic as to believe ourselves competent for such a task, but we wish to offer a few suggestions, based upon a long experience with these articles, which may be of some interest, though containing nothing new, but simply practical application of well-known facts and principles.

We first beg leave to state that periodicity is not an essential element of disease, nor is it even a pathologic condition, but simply a normal physiological manifestation, attendant to a greater or less extent upon almost every "ill that flesh is heir to," and by no means confined to malarial diseases, for which these alkaloids are justly denominated the Sampson remedy. All diseases which exert a depressing effect upon the nervous centers are

more or less marked by periodicity, or we might more appropriately say that periodicity is the vibration produced by any jar of the great nervous system, for we find it in the manifestations from traumatic injuries, as well as in disease. We should remember that when the system suffers any injury, whether from natural or traumatic causes, whether from an over-supply of deleterious food, or a blow from a stick, nature makes an herculean effort to rid herself of the grievance, and repair the injury done, nor does she cease that effort until she exhausts all the powers at her disposal; when that is done she ceases, in order to recuperate for another struggle. This is done under well-known physiological laws. No bodily function will bear continuous exertion without its periodic rest; contraction must be followed by relaxation, or disintegration is the result; even the heart, which carries on its unceasing action, has its period of rest between every beat; digestion has its periodic stages. We can not support life if we force into the stomach a continuous supply of food, although we do not exceed the quantity required; that organ must have its period of rest, which, if denied, will revolt at what you offer, and cease its work altogether. Periodicity is a law of nature, all-pervading and inexorable, and if disease shows its manifestations more markedly at certain periods than at others, it is in obedience to this great physiological law, and not a pathologic condition of the disease in question.

We have heard men speak gravely of a malarial diathesis which predisposes all diseases in malarial regions to assume a periodic type, but such logic is too peurile to be of any weight, for you must first take for granted the very fact that they are attempting to prove, viz: that periodicity is a peculiar pathologic characteristic of these diseases. Now 'tis true that the periodic manifestation is more observable in these disorders because of the rapidity and severity in which the paroxysms occur, but not more markedly than in epilepsy, hysteria and many other diseases, and we find these periodic manifestations in regions where malaria does not, and can not exist, and so with the periodic pain in cancer, gout, rheumatism, wounds and injuries; it is as well marked in northern latitudes as it is in the more temperate zones.

Let us now briefly look at some of the uses of quinine. It is a fact well known to every observer that quinine

exerts a wonderful influence over congestion, no matter where situated or how produced, relieving it sooner and more effectually than any other means at our disposal. It is also affirmed, and to the truth of which we bear witness, that it controls hemorrhage to a great extent. Certain forms of dysentery yield to its influence. In suppressed menstrual discharges it is as potent as it is in ague, and as an oxytoxic is superior to ergot. Does it fulfill all these indications as a tonic and antiperiodic? It would be rather vague to say that antiperiodic medicine is needed to produce uterine contraction during parturition, and a tonic under those circumstances would be wonderfully slow. That a tonic and antiperiodic would produce hyperæmia of the uterus and promote the menstrual flow, and the same agent check a hemorrhage from the same organ—one is a normal periodic function, the other is a morbid condition, apparently the exact antithesis of the other; but as it does these things, there must be some good reason for its doing so, and this is the explanation we have to offer. Quinine and its kindred, cinchona alkaloids, are simply *nervous stimulants*, exerting a special stimulant effect on the *vaso-motor nerves*, and thereby equalizing and maintaining that balance in the circulation which is necessary to the normal working of the animal machine.

Now we are all aware that congestion is dependent on a semi-paralytic condition of the muscular coats of the vessels of the part congested, caused by a want of nerve stimuli (see Brown-Séquard and Claude Bernard's experiments), and we further know that where there is too much blood in any given part, it is at the expense of some other; or there is a corresponding deficiency of blood somewhere in the circulation, when there is hyperæmia in any particular part, and in order to relieve this, we must stimulate the vaso-motor nerves to action, and when we do so, the distended vessels contract, the balance of circulation is restored, and harmony is the result. Hemorrhage is dependent on local hyperæmia, and the beneficial effects of quinine in controlling hemorrhage is due, we think, to its stimulating effects on the vaso-motor nerve centers. In confirmation of this view, we would call attention to the following facts: When from the exposure to sudden cold the menstrua is arrested, there is nothing that will so speedily restore the function as decided doses of quinine, and when from a lax condition of the uterine vessels menorrhagia

occurs we find quinine just as potent in its arrest. Now in both these conditions we have the same thing inversely in sudden suppression of the menstrua; there is not sufficient blood sent to the uterus to enable it to perform this function, and consequently there must be hyperæmia elsewhere, and the vaso-motor stimulating properties of the quinine causes a more equal distribution by contracting the distended arteries where the local hyperæmia exists. In menorrhagia you have the local hyperæmia in the uterus itself, and it is stopped by the same means.

During any stage of pregnancy you may give quinine to any reasonable degree of cinchonism without disturbing the uterus in the least, and we have known cases of threatened abortion checked promptly and efficiently when opium utterly failed to relieve the pains; and we have, during parturition, produced urine contractions with the same drug, where ergot was as impotent as water. Now this is the way in which we account for these seeming inconsistencies. In the first case quinine has a specific stimulating effect over the whole vaso-motor system, and a general contraction of the whole arterial system alike, would not affect the normal status of the gravid uterus. In those cases of threatened abortion the cause was evidently a hyperæmic condition of the uterus, and the quinine relieved what the opium could not. The beneficial effect of quinine in parturition is not dependent on any specific action it has over the contraction of the uterus, but is best observed in those lingering cases of labor, where the patient has pains more of a neuralgic character than true contraction, when contraction commencing creates a reflex action, which from its severity cuts short the contraction, and in those cases of lingering labor where the powers are exhausted, and is due to keeping equalized the sympathetic system and preventing reflex nervous action, thereby allowing labor to proceed naturally.

To account for the beneficial effects of quinine in diarrhoea, we must only call to mind the fact that partial hyperæmia in a gland produces increased functional activity, and in those cases where it is beneficial there is enteric hyperæmia, and they are checked, not by a tonic or astringent effects of the quinine, but by its stimulating properties on enteric vessels, equalizing the circulation and diminishing congestion.

As to its therapeutic effect in malarial diseases, we may

reiterate what we have already stated. In all malarial diseases there is a great want of balance in the circulation; congestion is one of its marked characteristics, and while the limits of this article do not admit of a discussion of the pathology of these diseases, we will state that our experience leads us to the conclusion that they are not dependent on any specific *blood poison*, and the primary lesion must be looked for in the great sympathetic ganglia, and the alteration of the blood observed in these diseases is rather from a want of nerve-influence in perfecting natural changes, than the effect of any so-called poison. Whatever produces this functional derangement of the nerve-centers, there is no better means of remedying it, than sending to the brain a normal quantity of oxygenized blood, and quinine, by its stimulating effects on the vaso-motor system, regulates this supply by restoring the equilibrium of the circulation.

So far as regards the tonic properties of quinine, if we properly understand what is meant by a tonic, we have utterly failed to find that it has any. Its influence is as evanescent as it is potent, but as an adjunct to tonics, it is highly beneficial. As the carpenter uses a clamp to hold his boards together until he fastens them permanently with nails or screws, so do we use quinine. It holds the system temporarily in shape, and gives us a chance to permanently tighten all the loose screws.

All that we have said in regard to quinia holds good with all the cinchona alkaloids; they each and all possess this property of stimulating the vaso-motor system, and the results obtained from them are in proportion to their solubility in the juices of the stomach. These remedies require to go into the circulation by endosmosis, and are only completely soluble in an acid, and if they pass into the duodenum they meet with alkaline secretions, which render them more insoluble, and consequently inert. By using acid drinks during their administration (and we prefer buttermilk to all others), there is scarcely any appreciable difference in their effects. We have had as rapid and perfect results with the tasteless cinchona alkaloid by using buttermilk with it, as we ever had from quinine, and we have seen cases where quinine failed to act when given alone, brought promptly under its influence by using acidulous drinks. We have further found that, as a matter of economy, it is well to use them all

together. Cinehonidia, sulphate of cinchona and quinia intimately mixed, will produce better results and require smaller doses than either of them alone.

This, from our experience, is the whole therapeutical property of these remedies, and when we reflect on the amount of paresis of the sympathetic centers there is in almost all diseases, if we are correct in our conclusions, it opens a wider field for the usefulness of these preparations which will enable them to confer an incalculable benefit to mankind.

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### Philadelphia County Medical Society.

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A CONVERSATIONAL meeting was held at the hall of the College of Physicians, Philadelphia, October 8, 1879, Professor Henry H. Smith, President of the Society, in the chair. Dr. Charles T. Hunter read a paper (see page 89) on "Hot Water as a Hæmostatic in Surgery," which received a vote of thanks from the Society.

Dr. John H. Packard said that he could add his testimony to what had been said as to the value of hot water as a hæmostatic in surgical operations, and would endorse it even to a greater degree than the lecturer had. In a recent attempt to remove a tumor from the antrum, of the nature of a polypus, which had grown principally outward, so that it was covered with a mere shell of bone, he had adopted the hot water as a hæmostatic with perfect success, so that this usually bloody operation was performed without the profuse bleeding that was expected. When the floor of the antrum was exposed there was pretty free hemorrhage, but on applying a sponge wet with warm water directly to the surface the bleeding immediately ceased. It was also effective in checking the hemorrhage from the cut surface of the lips in the earlier stage of the operation. He had resorted to it in a number of instances with success. In the operation of tying the external iliac artery the continual welling up of blood is a constant source of embarrassment. Performing this operation not long ago, he had noticed that by applying sponges dipped in hot water the oozing was prevented, and the wound was kept in a clean condition, which was very desirable in making the dissection. Only the last week, while performing an amputation of the leg, he had

found it to accomplish fully all that Dr. Hunter had claimed for it.

Dr. M. O'Hara remarked that the temperature of the water recommended to be used for injection in uterine hemorrhage is from 118° to 120°, and therefore hotter than that named by the lecturer by nearly ten degrees. He also called attention to the manner of application of the agent in obstetrics, where it is thrown against the bleeding surface, with some force and in considerable quantity. He inclined to the opinion that this manner of application by the douche might be more efficient than by sponges or fomentations, since in the latter case the heat is rapidly lost as soon as applied. When the use of the thermometer is inconvenient, the temperature of the water may readily be tested by the back of the hand. From experiments made at the Woman's Hospital of this city, it was ascertained that the highest temperature that could be borne in this way without pain corresponded usually with about 118° of Fahrenheit's scale.

Dr. Hunter replied that at the late meeting of the British Medical Association at Cork, the gentlemen attending the gynaecological section gave as the result of their experience that the temperature of the water should not be above 110°. He knew that it had been used hotter for the same purposes in this country, but he had arrived at his conclusions as to the proper temperature to be employed in surgery only after careful comparison, observation and experiment.

In regard to the manner of application, he was in the habit of making a thick compress, large enough to cover the entire surface of the wound. This is made of towels, and after dipping in the water is applied to the entire surface simultaneously. He was confident that much less heat is lost in this way than by the stream of water delivered from the syringe or douche. He had tried both methods at the University and Pennsylvania Hospitals, and preferred the method recommended in the paper.

Dr. Charles B. Nancrede said that he had adopted this expedient in a number of cases during the last few months, with complete satisfaction. In a case of whitlow, where he had been called upon to remove the ungual phalanx, the parts were very vascular and bled freely. The application of ice did not check the hemorrhage, but the hot water stopped it instantly. In two cases of lymphadenoma

of the neck that he had removed recently, requiring careful dissection, the hot water checked the bleeding so as greatly to facilitate the operation. He also referred to a case of partial amputation of the foot for old disease, where the parts were very vascular and congested, but the hot water prevented hemorrhage. In secondary hemorrhage it is also useful, and he communicated a case where there was a tendency to hemorrhage and bleeding, recurring for several days, in spite of ordinary styptics, but which was permanently checked by hot water.

Dr. W. R. D. Blackwood inquired if any member had seen injurious constitutional impressions from the use of hot water as a haemostatic. The application must make a powerful impression upon the nerves of the part, and might increase the shock after surgical operations. He asked this question because, in a recent case of threatened post-partum hemorrhage occurring in a habitual flooder, he had used the hot injection as recommended at a previous meeting of this Society by Dr. Albert H. Smith, and he was certain that the shock which made its appearance within fifteen minutes after the injection was due solely to the hot water. The patient appeared to be in a state of serious collapse, but recovered by the liberal use of stimulants. The hemorrhage was checked, however, and the woman actually lost less blood than in an ordinary labor. He had also noticed in one of the medical journals that a practitioner in one of the Southern States had decided trouble in gynaecological practice after the hot-water injections.

Dr. Hunter stated that he had never seen any bad effects from it. In a recent case of exstrophy of the bladder, operated upon by Dr. Levis, at the Pennsylvania Hospital, in which there was a very large wounded surface, the capillary bleeding was fully controlled by the hot water, and no bad results followed, but the child recovered very nicely from the effects of the operation, although prolonged etherization had been required.

Dr. Henry H. Smith called attention to the use of hot oil as an application to check hemorrhage in military surgery previous to the introduction of the ligature by Ambrose Pare. He inquired of the lecturer what was the physiological action of liquid or moist heat.

Dr. Hunter had recently seen a reference to this use of hot oil by Pare, in a paper by Thirsch. He had not been

able, however, to find any satisfactory account of the physiological effects of the hot application in any of the journals. The only reference to the use of hot water as a haemostatic he knew of was in *The Practitioner* for February, 1879, in a communication from Charles B. Keetley, F.R.C.S., Assistant Surgeon to the West London Hospital.

Dr. W. H. Parish had used the hot water in gynaecological practice, in hemorrhage from the uteris or vagina, with the effect of promptly checking the bleeding. In regard to bad consequences, he had seen three cases of severe uterine colic from the use of hot-water injections—just as severe as though cold water had been used. He had not thought that the hot water entered the uterus, but that colic occurred simply from the excess of heat, and the friction or impinging of the douche upon the cervix.

Dr. Hunter remarked that as the result of some experiments upon sensation he had found that he was able to take water as hot as  $140^{\circ}$  into his mouth, but not above this without pain. He could hold his hand in water of  $130^{\circ}$ ; the back of the hand is rather more sensitive, as observed by Dr. O'Hara, and as he had also found stated in Kuss's *Physiology*.

Dr. George Hamilton said that the method proposed for the arrest of hemorrhage by means of hot applications was not only different from, but was apparently antagonistic to, the action of cold, hitherto so generally employed for this purpose. The lecture of this evening, novel, interesting and important in its practical aspects, shows, in connection with other statements made during the discussion upon the subject, that this is not the case. More than forty years ago, while practicing in the country, a nurse had spoken to him (Dr. Hamilton) of the successful application to the hypogastric region of a hot-folded napkin, by order of the attending physician, for the arrest of uterine hemorrhage, when the ordinary measures had failed. Cold water, suddenly dashed upon the abdomen, in post-partum hemorrhage, is known to be one of the most effectual methods for arresting the discharge. The shock to the nervous system by this procedure is evident from the shivering or chill that at once ensues, and, as a sequence, diminished action of the whole vascular system.

The *rationale*, when a very hot application is suddenly

made, may be of the same character, for here, just as is seen in case of severe burns or scalding, chills or rigor may ensue, and here again a partial paralysis of the heart and vascular system occurs. Water of a high temperature used for the suppression of hemorrhage in surgery—to which object the lecturer has given his particular attention this evening—or injected into the cavity of the uterus, acts, no doubt, as was stated in the lecture, locally, by producing coagulation, as well as by reflex action of the nervous system.

Dr. Nancrede attributed the hæmostatic effects of the application of hot water partly to the coagulation of fibrin by the action of heat, and partly to the stimulating influence upon the vaso-motor nerves.

Dr. Benjamin H. Lee inquired whether the year 1875 was regarded as the date of the introduction of hot water into obstetric practice.

Dr. Hunter replied that in the discussion at Cork, before referred to, it was so stated, he thought, by a gentleman named Kerr; but Dr. Stillwell, of San Francisco, states that three years before he saw Dr. Marion Sims throw hot water upon a raw surface to check bleeding.

Dr. Lee said that about twenty years ago a paper by a distinguished physician of New Orleans was published on the "Use of Hot Water as a Hæmostatic," in which he had personally felt much interest. He believed the paper could be found in the early transactions of the American Medical Association.

Dr. Henry H. Smith could not recall having seen such a paper in the transactions.

Dr. J. T. Eskridge explained the physiological action of hot water through its action on the nervous system, and as an irritant to the parts. He did not think it directly favored the coagulation of fibrin, for this will take place at, and is assisted by, any temperature below  $160^{\circ}$ , and above the freezing point, but a much higher temperature would prevent its coagulation.

Dr. William B. Atkinson said that he recalled the fact that in 1867, while he was assistant editor of the *Philadelphia Medical and Surgical Reporter*, a paper was presented by a Dr. Neville C. Read, of this city, in which he recommended the use of hot water as an agent for checking hemorrhage. The editor of the journal, the late Dr.

S. W. Butler, refused to publish the paper on the ground of its being impracticable and visionary.

Dr. Charles K. Mills said that the haemostatic effect of the hot water is principally owing to its effect on the vaso-motor nerves. Two classes of cases occur in which there is general vaso-motor spasm; in one there is extreme pallor and coldness of the extremities, and in another set there is vaso-motor paresis, with passive congestion and sudden flooding of the parts by the blood. These can be treated by heat, electricity, stimulants, etc. In considering the local effects of the hot water, it appears that the action is a direct one, and occurs independently of the vaso-motor centers. There is little doubt that there exists in the spinal cord a series of vaso-motor centers, besides the well-known center in the pons and the higher cerebral vascular centers. In the sudden application of hot water there is a powerful impression made upon the peripheral nerves, which is subsequently carried to the spinal cord, and may thus stimulate the vaso-motor centers into reflex action. In cases of hemorrhage due to vaso-motor paresis the good effects of the hot water may be explained in the same way.

Dr. O'Hara did not believe that the effect of the hot water could be explained altogether by nervous influence, because in that case it would be temporary, and the bleeding would return when the nerves resumed their functions. Coagulation must occur to stop the bleeding permanently.

Dr. J. L. Ludlow inquired whether the lecturer had observed anything like a shock in his cases.

Dr. Hunter said that his first impression had been that the effect was a reflex one, through vaso-motor influence; he now regarded the hot water as acting more particularly as a stimulant to the arterioles and the connective tissue in which the vessels lie. Undoubtedly the permanent occlusion of the vessels depends upon the formation of clots, although the heat is also capable of producing a profound nervous impression. He had often used the hot bath as a stimulant to the circulation, with good results. In a case of angina pectoris he had always succeeded in giving complete relief by a bath rapidly raised from 98° to 110°; immersion of about ten minutes entirely removing the oppression around the heart, and alleviating the other urgent symptoms.

In regard to the action of hot water upon the vaso-motor nerves, he said that Mr. Druitt\* had recommended hot applications for excessive perspiration by sponging the surface with water at  $130^{\circ}$ , but for immersion the heat must be less; prolonged applications cause the surface to become red and congested. Upon a raw surface water of  $110^{\circ}$  will close the open mouths of the capillary vessels as the first action; but if continued for several minutes it would probably produce the contrary effect, and lead to profuse hemorrhage, as he had observed that the prolonged action of hot water seems to produce a condition of turgidity of the vessels lying immediately beneath the surface.

#### A CASE OF CALCAREOUS DEGENERATION OF THE MEMBRANA TYMPANI.

Dr. Charles L. Turnbull presented a patient of about twenty-six years of age for examination, with calcareous degeneration of membrana tympani. The symptomis consisted only in slight impairment of hearing; there was no history of any previous suppurative action or earache. Dr. Turnbull also exhibited a plate representing this condition, which had been colored for him while in Vienna, by Dr. Adam Politzer, the author of most of the literature of this disorder.

The calcareous deposit takes place primarily in the middle lamina of the membrane, as in the case under discussion, the mucoid and epidermal layers generally escaping; although Politzer has seen cases where these other layers have participated in the change, and in some the deposit consist of bony substances. The condition has been found co-existing with gout or rheumatism, and may accompany chalky deposits in the auricle and the fingers. No evidence of this kind could be obtained in the present case beyond the fact that the patient believed that he had been scrofulous in childhood.

A vote of thanks was unanimously passed by the Society to Dr. Hunter for his valuable paper, and to Dr. Turnbull for his interesting remarks. The Society then adjourned.—*Medical Times.*

\*On the Use of Hot Water as a Remedy in Profuse Perspiration, in the *Medical Times and Gazette*, March, 1865.

### Cerebral Anatomy.

IN discussing cerebral anatomy in the Academy of Medicine of New York, Dr. Dalton said "attention is being directed especially to the anatomy of the corpus striatum.

The anatomy of the brain, said Dr. Dalton, is complicated in its details, but simple in its general structure. It consists of gray and white matter. The gray matter is arranged in two separate divisions, occupying two separate localities: 1. Exterior, convolutions; 2. Interior, cerebral ganglia, the corpus striatum and the optic thalamus. The white matter is a continuation of the longitudinal columns of the spinal cord. The ascending fibers of white substance were then traced through the medulla, the pons varolii, crura cerebri, internal capsule, and to the fan-shaped expansion, the corona radiata. In the cerebro-spinal system, counting from without inward, there are three distinct deposits of gray matter: 1. The gray matter of the spinal cord; 2. The gray matter of the cerebral ganglia; 3. The gray matter of the convolutions.

The doctrines now in vogue—even the recent views of Meynert and others, when divested of superfluous nomenclature—regarding the anatomy of the brain, were based upon the general view of three successive deposits of gray matter, connected with each other by three successive sets of white fibers. Of these three deposits of gray matter, the middle consists of the large cerebral ganglia, both of which occupy about the same level.

Dr. Dalton then referred to differences between the corpus striatum and the optic thalamus—the latter, on section, presenting a rather uniform gray tint, and the former showing white fibers arranged in bundles visible to the naked eye, and giving it a striated appearance. The corpus striatum was made up of two distinct parts: 1. Anteriorly, the intra-ventricular portion, or caudate nucleus; and 2. Posteriorly, the extra-ventricular portion, or lenticular nucleus. The optic thalamus was a single ganglion by itself. Of late it had become quite customary to restrict the term, corpus striatum, to its intra-ventricular portion.

He then alluded to the situation of these masses of gray matter with relation to the internal capsule and the crura cerebri, and passed to the consideration of the internal capsule. It could not be seen that the internal capsule

was composed throughout of fibers which run continuously from the *medulla oblongata* below to the convolutions above, but, on the contrary, there was a strong conviction that they were not the same fibers, and that in the passage from below upward there was an interchange of fibers, in the cerebral ganglia, not visible to the naked eye. In a physiological point of view there was no doubt that it was the channel of conduction between the hemispheres and the spinal cord.

Dr. Dalton then passed to the consideration of certain general and specific differences between the human brain and the brains of animals. The general difference consisted in the greater development of cortical substance. The specific differences were two: 1. The fissure of *Sylvius* was double in the human subject, consisting, 1, of a posterior branch, which was simply an elongation of the *Sylvian fissure*, as seen in the brain of the fox; and 2, an anterior branch; and between the two there was a triangular mass which was known as the *operculum*, and below them a group of convolutions known as the *Island of Reil*. He then directed attention to the formation of the fissure of *Rolando*, which was simply a dividing line between the descending and ascending portion of a curve the convolutions made in addition to the double curve formed on the convexity of the hemisphere; to the *cuneus*, the *precuneus* and the *paracentral lobule*; to the *gyrus fornicatus*; and then spoke of a special anatomy of the *corpus striatum*, which was usually described as a gray mass having an enlarged club-shaped extremity, directed forward and occupying the anterior horn of the lateral ventricle, and a cylindrical tail-like prolongation directed backward, and running along the outer edge of the lateral ventricle and terminating somewhere about the posterior end of the optic thalamus. In reality it was much more extensive than that. In fact, the extent of the *corpus striatum* was almost that of a complete ring encircling the *crus cerebri* and *internal capsule*, exactly as did the *gyrus fornicatus*. That arrangement could sometimes be seen simply by opening the lateral ventricle throughout its entire extent. It had enlargements in its course, and was more or less interrupted by oblique fibers, which came from the *tænia semicircularis*.

The anterior extremity of the *corpus* was connected with the gray matter of the convolutions at the base of

the brain, just in front of the Sylvian fissure; and in a similar way the end of its curved portion was connected with the gray matter at the inferior extremity of the posterior horn of the lateral ventricle, with the amygdala just underneath the lenticular nucleus. In the smaller portion of the corpus striatum the striations were lost. The corpora striata were masses, which correspond in structure exactly with the remainder of the hemispheres.

In the discussion that followed, Dr. E. C. Seguin directed attention to two points: 1. The great importance of clearly separating the nucleus caudatus from the nucleus lenticularis. They were almost completely separated anatomically, and the functions of the two parts were distinct. The nucleus caudatus had a more intimate connection with the motor tract than had the nucleus lenticularis.

2. The importance of understanding the true relations of the internal capsule. If any fact had been demonstrated by the help of pathological anatomy, it was that there was a continuous connection, by means of the white matter, between the cortex of the brain and the spinal cord. It was interesting to notice the growth of opinion relative to the physiological importance of the internal capsule, nucleus caudatus, and the nucleus lenticularis. There were competent observers who doubted whether hemorrhage into the lenticular nucleus was a cause of hemiplegia. Charcot was of the opinion that the hemiplegia was produced by the pressure exerted upon the internal capsule. If the lesion destroyed the anterior portion of the internal capsule, motor disturbances followed; if the lesion was in the posterior portion, sometimes distinct motor symptoms were developed, but most prominently sensory disturbances upon the opposite side.

Dr. E. G. Janeway referred to a case which threw doubt upon the belief that destruction of the posterior part of the internal capsule always produced hemianesthesia. In a case of hemiplegia the leg almost entirely recovered, the arm remained a trifle stiff, but possessed considerable power, and there was no anesthesia. The patient died a year and a half afterward, and it was found that the lesion involved the entire posterior two-fifths of the caudate nucleus, all the internal capsule between it and the lenticular nucleus, besides producing well-marked atrophy of the lenticular nucleus and anterior part of the optic

thalamus. With reference to effects produced by lesion in the lenticular nucleus, he referred to a case in which a tumor was limited to that region, was not capable of producing much pressure on surrounding parts, and yet the symptom was simply aphasia, with a certain kind of dizziness having no special significance. He had also seen a case in which the lenticular nucleus was the site of an old cyst, which produced persistent aphasia. How explain the aphasia?

Dr. Wm. H. Welch said that the valuable contribution of Dr. Dalton to the anatomy of the corpus striatum proved that there was still room for work in the topographical anatomy of the brain. The statement of Dr. Dalton, concerning the termination of fibers of the internal capsule in the basal ganglia, needed modification, since the researches of Flechsig had shown that the fibers which convey voluntary motor impulses from the central convolutions passed through the posterior third of the internal capsule, without terminating in the caudate or the lenticular nucleus. This discovery was in opposition to Meynert's theory of the three projection systems. Dr. Janeway's case of absence of anaesthesia with a lesion of the posterior part of the internal capsule, was rather in accord with Flechsig's views than with those of Charcot, who placed the motor fibers in the anterior two-thirds of the internal capsule.

Notwithstanding Meynert's brilliant investigations, the purely anatomical methods, while they taught us the topography of the brain, had given us very little certain information concerning its inner architecture—that is, the course pursued by nerve-fibers and the connections between the different nerve-centers. For a knowledge of these most important relations we were to look also, in the future, to embryology, comparative anatomy, pathology, and experimental physiology. Flechsig's embryological researches and the experiments of Gudden on young rabbits were referred to. Comparative anatomy might be expected to give important information, after the homologies between the different parts of the brain of man and those of the lower animals had been more clearly determined than was yet the case. But caution was requisite as regards applying directly to man the observations made on the nervous systems of the lower animals, since it had been shown that the pyramidal-fibers, for instance,

occupy very different parts of the spinal cord in different animals. As a basis for the study of the localization and of the connections of nerve-centers and nerve-fibers, an accurate topographical anatomy of the brain was indispensable.

Dr. W. A. Hammond, on invitation, remarked that it was held by neurologists in general that lesion in the optic thalamus was followed by temporary paralysis upon the opposite side and hemianæsthesia; that a lesion confined to the intra-ventricular nucleus gave rise to transient hemiplegia upon the opposite side, with derangement of sensibility; that a lesion involving the extra-ventricular nucleus also produced transient hemiplegia upon the opposite side; that a lesion involving the anterior portion of the internal capsule produced permanent hemiplegia upon the opposite side, much more so than lesion involving either the corpus striatum or optic thalamus; that a lesion involving the posterior two-thirds of the internal capsule produced permanent paralysis, hemi-anæsthesia, and permanent contraction of the muscles. He thought that when contractions of the muscles came on later they were not cerebral in origin, but depended upon secondary degeneration of the spinal cord.

Dr. Dalton replied to Dr. Welch, who thought that we should look for the most permanent advancement in our knowledge of the brain in pathological observation and physiological experiment, because so little real information had been obtained by purely anatomical investigations, and did so with the greatest respect for his opinion, by entering a protest against this view, for the reason that too much had already been done in that direction. For example, a section is made directly through certain nerve-fibers, and certain effects are produced upon distant parts, and immediately we deduce anatomical facts from physiological experiment—a method of reasoning which he believed was entirely wrong. The same was true with regard to pathology. For example, a tumor in a certain portion of the brain is associated with symptoms produced in a certain part of the body, but it was impossible to say that nerve-fibers extended from the first place to the second. He thought one of the faults that had been committed was conducting purely anatomical investigations of the brain by means of physiological experiments.

and pathological observations. Both had their distinct values.

Dr. E. C. Spitzka, on invitation, spoke of the development of the corpus striatum in the lower animals, and also in man, and said that he found the portion most posterior to be composed more of neuroglia and atrophic elements, than of real ganglion tissue. With regard to Dr. Dalton's interpretation of the amygdala, he thought it would bear further investigation. He also thought that the results obtained by Flechsig, referred to by Dr. Welch, had been overrated, for F. had so confounded anatomical parts that his opinion could not be regarded as one having very great value. He then spoke regarding the striated appearance of the corpus striatum and the arrangement of the convolutions.

Dr. Welch remarked that he placed physiological experiments as the least valuable, of those mentioned, as a means of research. He thought, however, that experimental physiology and pathology had been of no slight service, inasmuch as they had taught us the location of psycho-motor and psycho-sensory centers in the cerebral cortex, and the course of certain groups of important nerve-fibers in the brain and the spinal cord.

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### A Case of Talipes Valgus—Quandary of Diagnosis— Experimental Therapeutics—Relief by Operation.

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BY LOUIS BAUER, M. D.,  
St. Louis College of Physicians and Surgeons.

AN eminent jurist desired my visit to his lame daughter. For reasons of his own, he seemed to be reluctant to answer any questions. All I could ascertain was, that the patient had been an invalid for the last three years, and had used crutches for the last eighteen months; that, although there was no swelling, discoloration, deformity, or any other noticeable morbid change about *her left foot*, she could not use it without insufferable pain. When at rest, the foot gave her no inconvenience, nor had her general health been compromised. A cursory examination disclosed at once the varied symptoms of talipes valgus, to wit:

1. Moderate attenuation of the leg.

2. Loss in the span of the plantar arch.
3. Protrusion of the scaphoid bone.
4. Rotation of the foot at Chopart's joint (articulation between the first and second row of tarsal bones), with depression of the tibial and an elevation of the fibular margin.
5. Eversion of the toes, and,
6. Contraction of both posterior peronæi.

When these muscles were stretched by an opposite rotation of the foot, the very identical pains at the ankle joint were produced, of which the patient complained whenever the foot was put into use. There were no other morbid changes at or about the ankle joint or foot.

Thus diagnosis and treatment were clearly marked out.

On the next day the tendons of the contracted muscles were divided, and the deformity thus corrected.

Immediately after the operation, the young lady was induced to stand on the affected extremity and was able to bear her entire weight upon it. The pain had vanished. A letter from her father, lately received, affirms that she had no more use for crutches.

This case offers no extraordinary points to me and I would not have thought it worth publishing, if it was not for the fact that some of the most prominent surgeons of the Mississippi valley had completely failed in recognizing and relieving so perspicuous a case.

When combined talent and experience fall short, it is to be presumed that the general practitioner would appreciate the relation of a case which has made some stir among the learned and advanced portion of the profession.

"To my thinking" the case could be only one of two conditions. It was either synovitis of the ankle joint, or talipes valgus. In both there may be pain and muscular contraction of the peronæi. In the one it is the result of reflex action excited by the inflammation of the tibio-tarsal articulation; the other is often congenital and mostly the result of central irritation and morbid centripetal innervation.

Synovitis it could not be, for the following reasons:

1. There were no symptoms of inflammation of the synovial membrane, to wit: swelling and distention of the joint by effusion, and,
2. The pain was not permanent—absent in rest and

present when the foot had to bear part of the weight of the body.

Osteomyelitis of the tarsal bones and bones of the leg it could not be, since a duration of three years had failed to effect any disintegration, suppuration, caries or other changes of the individual bones.

Then, by exclusion, it was a case of genuine, probably congenital, talipes valgus.

It might be averred, that in such an instance the effects of talipes should have manifested themselves at an earlier age. My answer is, not necessarily. A moderate degree of that deformity may exist for years without any serious trouble, provided the patient is not very tall, and heavy in weight, or is obliged to lift heavy objects. Now the young lady had of late grown very tall and fleshy; her weight, although but fourteen years of age, had risen to one hundred and thirty pounds. This alone would furnish a sufficient cause to aggravate her trouble. Thus cause and effect are obvious.

A careful logical reasoning should have led to a correct diagnosis. But supposing inflammation had been recognized, the treatment would not have deviated materially. The acknowledged therapeutical rule would have been *to immobilize the joint in an appropriate position, and to dispose of existing muscular opposition.* Whether the muscular contraction was reflex or centripedal was of no material weight. The contracted muscles had to be cut in order to reduce the deformity. While it prevailed, the limb was of no use, since the corporeal weight alighted in a prejudicial direction upon the skeleton of the foot and caused a painful stretch of the contracted muscles.

The tenotomy, the most important measure of relief, was neglected, and hence the failure.

I will not reiterate here all the mistakes made in the treatment of the young lady, nor will I set myself up in judgment of my confreres; but this I can say in honest candor, that the moral courage has never failed me to peremptorily decline the treatment of any case, unless I have a diagnosis at the foundation of my surgical action.

## Medical Society of the District of Columbia.

## ITS ORIGIN AND HISTORY.

At a regular meeting of the Medical Society of the District of Columbia, on Wednesday evening, Dr. D. R. Hagner (president) in the chair, the special business of the evening was the delivery of the annual oration of the society. There was a good attendance of the profession and their friends. The chairman of the committee of arrangements, Dr. J. M. Toner, in introducing the orator of the evening, alluded to the origin of the society, and remarked that the first public notice relative to its formation was contained in the *National Intelligencer*, of September 24, 1817, in the following words: "The physicians of Washington and Georgetown are requested to meet at 'Tennison's Hotel,' on Friday, the 26th inst. (Sept., 1817), at 11 o'clock, for the purpose of taking into consideration the organization of a Medical Society." Sixteen physicians assembled at the time and place indicated. On an occasion like this, after a lapse of over sixty-two years, it may have some historical interest to give the names of these—the fathers of the society: Drs. Charles Worthington, James H. Blake, Thomas Sim, Alexander McWilliams, Robert French, Samuel Hearsley, James T. Johnson, J. P. C. McMahon, Paregrini Warfield, Thomas Henderson, George Clark, Benjamin S. Bohrer, John Harrison, William Jones, Nicholas Worthington and Henry Hunt. Dr. Charles Worthington was requested to take the chair, and Dr. Henry Hunt chosen secretary. The object of the meeting having been stated and fully discussed, the project met with unanimous approval, as was manifested by the passage of a resolution, which appeared in the notice of the meeting in the *National Intelligencer* the following morning: "That the physicians attending this meeting deem it important and expedient to organize at once a society in the District for the promotion of medical science." A committee of seven men was then chosen by ballot, to draft a constitution and by-laws for the government of a society to be called "The Medical Society of the District of Columbia;" and to report to a meeting to be held on the first Monday in November, at the same hour and place. This committee consisted of

Drs. Blake, Sim, Henderson, Clark, Worthington, jr., Warfield and Hunt. The society met accordingly November 3, and heard the report, which was taken up, section by section, and altered or amended as they desired. Being unable to complete the work at this sitting, they adjourned until the 10th, to meet at the same place. (See *National Intelligencer*, November 8, 1817.) At the third meeting the work of reducing to form the fundamental regulations was concluded, but, as the first notice had unintentionally omitted in the call the Alexandria physicians, a final vote of adoption of the constitution and by-laws as a whole was deferred until they could be copied into a book, and until a notice was published inviting all the physicians in the District to participate in the formation of the society, to meet January 5, 1818, at "Tennison's Hotel," for the purpose of completing the organization. At this meeting the physicians of Alexandria attended, and took part in the organization, and were given places among the officers and on the different committees, and continued in active co-operation until 1846, when that part of the District south of the Potomac was retroceded to Virginia. The society at that time provided for the establishment of a library and for four regular meetings in each year. The officers chosen at the first meeting after the adoption of the constitution and by-laws were Dr. Charles Worthington, President; Drs. Arnold Elzy and Jas. H. Blake, Vice Presidents; Dr. Henry Hunt, Corresponding Secretary; Dr. Thomas Henderson, Recording Secretary; Dr. Richard Weightman, Librarian; Dr. William Jones, Treasurer. The society was popular and prosperous, and in 1818 twenty-one members of the society joined in a petition to Congress for a charter. An act passed Congress incorporating the society under the name of "The Medical Society of the District of Columbia," which became a law February 16, 1819. The charter of the society has been amended but once, which bears date July 7, 1838. None of the original members are now living. Dr. William Jones, who died June 25, 1867, was the last of these worthies to pass from earth. At the time the revised charter was asked for, in 1838, there were but seven of the twenty-one original incorporators living. These seven, with fifteen additional names, members of the society, making twenty-two physicians who are named in the revised charter. Of these twenty-two

there are, after forty-one years, but seven of them living, namely, Drs. John B. Blake, Joseph Barrows, H. F. Condict, J. C. Hall, Benjamin King, Harvey Lindsly and Noble Young. In closing, Dr. Toner said: "Although a resident physician and a member of this society for nearly a quarter of a century, I see in the room physicians who were born in this city, and who have been over half a century physicians and members of this old and honored society, and who know its origin and history better than myself. I will not, therefore, detain you longer with a recital of its origin and progress, but at once introduce to you the orator of the evening, Prof. Robert Reyburn, who has been chosen to address you on this occasion." Dr. Reyburn then delivered the annual oration, which was a very interesting one to his hearers, ably sketching as he did recent progress and improvements in the science of medicine, and throwing out valuable suggestions for medical practice at the present day.

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## MICROSCOPY.

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### The Cause of Consumption.

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Dr. SALISBURY is of the opinion that Consumption is caused by a fungoid or vegetable growth in the blood. "If a drop of the blood be examined in the microscope, it will be found to be filled with this vegetable growth, which looks like the spores in the blood to become watery, and depriving it of the life-giving qualities. The stomach of one in this condition is little else than an yeast pot. All that is taken into the stomach ferments, causing carbonic acid gas to generate. This rises mainly to the cavity of the left side of the stomach—this being the highest point—and paralyzes the muscles, and so interferes with the action of the heart, lungs and vocal cords as to cause loss of voice, and often partial paralysis of the legs."

The Doctor therefore recommends a beef diet as a curative means in the treatment of Consumption. A fruit and vegetable diet he regards as very injurious, producing, as it does, fermentation and fungoid growth in the blood. The following is his mode of broiling meat that it

may be the most nutritious and the least likely to do harm :

“First, trim off all the fat, then cut out the bone and all the large fibers and strings ; then chop fine as for sausage meat. Next, with a knife and fork, go over it again and remove all the little fibers that may have escaped notice before, and it is then ready for shaping. The meat is now almost a paste, and can be made into steaks of any size, or formed in a plate into one large piece to cover the broiler, which, when cooked on one side, can be turned by covering with the plate and reversing both plate and broiler, taking care to save the gravy. Butter, salt and pepper to taste after being cooked—not before—as it hardens the meat. A change can be made to porter-house or tender-loin steak if desired—not chopped, but trimmed of all fat. A roast of beef, lamb roast (trimmed of all fat) and dried beef can be eaten sparingly after awhile ; but for steady eating, broiled steak will be found the best. Lamb and chicken should be avoided if there is a tendency to diarrhea ; and in cases of excessive diarrhea, stop the hot water for a few times, and substitute a glass of boiled milk, made black with pepper.”

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### Blood in Diagnosis.

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SOME five years ago, Dr. Heitzman announced, in the *Medical Record* of this city, an important discovery in respect to the anatomy of protoplasm. He claimed that protoplasm of every description invariably contains a network of threads and granules inclosing a fluid, and that the threads and granules constitute the living matter. This view, he now asserts, has been accepted by more than a dozen of the best microscopists abroad, although it has not yet been recognized in this country ; and he makes it the basis of an announcement which, if satisfactorily demonstrated, can not fail to have a marked and beneficial effect upon the practice of medicine—the announcement that a drop of man’s blood under the microscope will tell just what his condition and constitution may be.

A protracted study of the pus corpuscles in urine, in connection with clinical histories, led Dr. Heitzman to the conclusion that the constitution of a patient could be determined by such examinations, the pus corpuscles of a

healthy and strong person containing a greater abundance of living matter than those of a person enfeebled by disease or otherwise. He next extended his investigations to the colorless blood corpuscles, suspecting that by their examination also he might be able to determine the constitution of the individual furnishing the blood. His expectation was verified, he says: an abundance of large granules going with a good constitution; on the other hand, if the granules were few and fine, or the entire body of the corpuscle pale, it was evidence of a poor constitution. He frequently noticed that the number of white blood corpuscles was considerably increased after a single sleepless night, so much so that it might be determined whether a man had been kept from his rest or not, by the examination of his blood. It could also be determined whether a man was to have acute diseases, or whether he was to suffer from the slow processes of disease incident to a strumous diathesis.

A committee of physicians has been appointed to investigate and report on this most promising subject. If it proves possible to determine a man's physical constitution by the examination of a drop of his blood, a new field of investigation will be opened, and one having very important practical bearings.

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### The Use of the Microspectroscope.

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It promises important results in chemical analysis, but requires delicate observation and exact measurements, together with a careful and systematic study of a large number of colored substances.

In using the microspectroscope, much depends on the regulation of the slit. It should be just wide enough to give a clear spectrum, without irregular shading. As a general rule, it should be just wide enough to show Fraunhofer's lines, indistinctly, in daylight. The slit in the side stage should be such that the two spectra are of equal brilliancy. No light should pass up the microscope but such as has passed through the object under examination. This sometimes requires a cap over the object-glass, perforated with an opening of about one sixteenth of an inch for a one and a half inch objective.

The number, position, width and intensity of the ab-

sorption bands are the data on which to form an opinion as to the nature of the object observed, and Mr. Sorby has invented a set of symbols for recording such observations. These bands, however, do not relate so much to the elementary constitution as to the physical condition of the substance, and vary according to the nature of the solvent, etc., yet many structures give such positive effects as to enable us to decide with confidence what they are.

Colored beads obtained by ordinary blowpipe testing, sections of crystals, etc., cut wedged-shaped so as to vary their thickness, often give satisfactory results. But minute quantities of animal and vegetable substances, as blood-stains, etc., dissolved and placed in short tubes fastened endwise on glass slides, or in some other convenient apparatus, offer the most valuable objects of research. To measure the exact position of the absorption-bands, the micrometer already described may be used, or Mr. Sorby's apparatus, giving an interference spectrum with twelve divisions, made by two Nicol's prisms, with an intervening plate of quartz of the required thickness.

—*Wythe.*

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### GLEANINGS.

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ERRORS IN DIET AS A CAUSE OF DIARRHEA.—Another cause of diarrhea troubles is the giving of all sorts of diet too early. There is a desire to make the child strong and grow more rapidly. Meat, vegetables, and farinaceous articles in abundance are given to children even eight or ten months old. A child under eight months ought to have no other diet than milk, and even up to two years milk should be its main diet. Human milk is the best during the first year or until weaning, but often from necessity the child is brought up on the bottle. During the first eight months cow's milk diluted one-fourth with barley-water makes the best diet. The ground or crushed barley should be boiled with water of sufficient quantity, so that when cold it is about as thick as thin cream. The milk should be given about blood-warm and a little sweetened. What place should condensed milk be given in the feeding of children? I should give it a place on the shelf at the grocer's. I have tried the condensed

milk with children thoroughly, and have seen it tried in the practice of others, and must protest against its use. Children fed on condensed milk, although they may thrive well apparently, yet when they fall ill show very little resisting power; and particularly when they fall ill of diarrhea they weaken very rapidly and the diarrhea is apt to be obstinate. There are exceptional cases in which it may be used, and some cases in which it is desirable to use it for a short time. When bottle-fed children suffer from diarrhea it is well to boil the milk and make the barley-water thinner and give more of it—say one-third barley-water and two-thirds boiled milk. I have found thoroughly-cooked wheat-flour an admirable food for children with diarrhea. Have it prepared in this way: Put about two pounds of flour in a muslin bag, tie a string around the top of it, and suspend it in a kettle of water and boil it for five hours; then let it get cold. Take off the bag, cut off the outside dough and grate it. Thicken boiled milk with this to about the consistency of a thin gruel, or about thick enough for it to pass through the rubber nipple of a nursing-bottle. All food for children should be thoroughly cooked. Still more is this to be observed when they are ill of diarrhea. As a rule, feed children suffering with acute diarrhea just as little food as will satisfy their hunger, and often a little cold water will relieve their thirst and lessen the desire for food. Avoid alcoholic stimulants, unless there is exhaustion. Champagne iced may be given in small quantities if there is obstinate vomiting.

EXTERNAL APPLICATIONS IN STRUMOUS DISEASE.—Dr. Horatio Storer, in the *Virginia Medical Monthly*:

From oil inunction every physician has obtained benefit who has taken the trouble to see that it was faithfully employed. Ordinary olive oil has been ordered, on the ground that it is cleaner. I am quite sure, however, that in fish oils, the odor of which, when prepared and kept with care, is no worse than many remedial agents that are constantly prescribed, we have a drug of greater specific power. Their price, especially the oil of menhaden, as compared with that of the olive, is much less, and on this account is of importance, certainly in hospital and dispensary practice.

Sea-water is so easily procured, so close at hand to many of our profession, that we are apt to forget that it is, in

reality, a "mineral water" of exceeding value. Let the same or very nearly the same formula be discovered in any spring-existing inland, as is the case with some of the most famous health-resorts in this country and Europe, and language in praise of it is exhausted by medical men. But then this sea-water is so very common. Allowing for all the benefits that change of air, of diet, of scene, and of thought have for an invalid brought to the sea-side, there yet remains, and prominently, the effect of the sea-bathing; and this, too, where the water is still and the stimulating shock of surf is absent.

Much of the advantage to be derived from sea-water can no doubt be obtained from its natural salt procured by evaporation, which the skill of the chemist has in vain tried to imitate. It is now somewhat difficult to obtain real sea-salt, as almost all the evaporating vats along the coast have been allowed to fall to pieces since the general use of rock salt and that from salt springs; but it would be for the advantage of invalids were it and sea-water added to their list of necessaries by druggists and country physicians. A pint of sea-water or half an ounce of sea-salt dissolved in a pint of rain-water will, if used with care, furnish an abundant sponge-bath. Careful analysis of the true and factitious sea-salts may seem to give identical results, but in effects the latter will be found to be lacking in a certain something that is possessed by the former.

Sea-water, it may here be said, has the same advantages as other mineral waters where indicated for internal use. In an overdose, like them, it will vomit and purge. In more reasonable quantities it produces, like them, a tonic, alterative, resolvent, deobstruent effect.

When used as a bath there are many methods, usual and unusual, by which to employ sea-water for strumous cases. I have spoken of the possibility of producing a temporary and local saline climate by its atomization. Here, in reality, we bathe and stimulate the respiratory mucous membrane, as well as obtain medicinal absorption thereby. In precisely the same way, by the atomizer, by the direct douche, and by the "internal soak," as it may be termed, where the cavity is partially filled, and allowed to remain unemptied for a considerable period of time, the rectal, vaginal, and even vesical coats may, for various indications, receive sea-water applications.

THE ABUSE OF QUININE.—Dr. A. G. Tebault, in *Virginia Medical Monthly*:

While it is impossible to estimate at its true value the boon conferred upon the human family by the discovery of *quinia*, there are reasons to suspect that, like venesection, catharsis, and other therapeutic agents in vogue at various epochs, it has often been employed without a due regard to proper limitations. Its lavish and excessive use in all diseases recognized to be of malarious origin and under all contingencies can not always be judicious. Seldom are doses above twenty grains necessary except in pernicious fever and Asiatic cholera, and then solely with a view to secure the speedy absorption of enough of the remedy to impress the system. Meantime its toxicological effects should be avoided with professional tact, as these may enhance the danger. In former years doses of one or two grains, frequently repeated, with the addition of opium when indicated, succeeded very generally as well in overcoming collapse. Briquet (*Traite Therapeutique du Quinquina et de ses Preparations*) concludes that the administration of the salts of *quinia* in doses sufficient to induce a sedative impression upon the circulation produces in the economy so serious a perturbation that the risk ought not to be run except when the disease is serious, either from its duration, its gravity, or the accidents and danger to which it may expose the patient.

That *quinia* is a specific in malarious diseases is a phrase calculated to conceal our ignorance of the mode of cure. Even its power as a prophylactic, when fairly tested, has proven unsatisfactory and fallen below expectation. Often when exhibited in large doses without due preparation, in anticipation of a paroxysm, or for weeks and months in divided doses as a preventive, it has failed to avert an attack. Indeed, as a prophylactic carbolic acid given in grain doses, at intervals of three to six hours, has, in my hands, yielded comparatively far happier results, even in cases where unmistakable prodromes of malarial fever were actually present. In experiments instituted during the past seven years, on my own person and others, feelings of lassitude, malaise, cutaneous torpors, disturbed sleep, furred tongue, nauseous taste, and anorexia often gave way under this treatment within twenty-four hours; and a pulse hitherto jerking and irritable became calm and of the natural rhythm, while a soothingly pleasant

sensation pervaded the system. No fever manifested itself in any of the cases; on the contrary, the person felt refreshed and buoyant.

No other agent which I have employed has ever superseded *carbolic acid* as an *apparent* disinfecter of the malarious taint within the system; and this, after anxious thought on the subject for years, is, to my mind, the first glimmer of light that may lead to the discovery of means to act directly on the poison of fever.

To return from this digression. Quinia, besides not being antiloimic, is not by far the best tonic, nor does it directly promote hematosis, nor is it a good hemostatic.

**MEAT DIET.**—Over 75,000 people die every year from this disease alone in the United States. The one thing to be noticed in the study of the statistics of consumption is, that climate has not so much to do with it, as has the method of feeding of those who suffer from it.

New England baked beans have been the cause of more disease than has the severity of its climate.

Consumption is hereditary, just as a father's spectacles or cane may be. If one accepts and chooses to wear the spectacles and walk with the cane, they are hereditary, and pass from father to son, but not otherwise. Whatever way one may live, the children will be likely to follow; and if the diet of the parents was food likely to ferment—such as fruits, vegetables, etc.—the children will follow in the same manner of eating. The principal thing needed is to change the diet, and regulate it according to the requirements of the patient's system. One may be predisposed to consumption in the sense that they have been accustomed to a diet that will, if persisted in, cause that disease; but it is within the power of every one to rid themselves of this predisposition by avoiding the cause. Consumption is not, like some other diseases, entailed upon us—only the conditions are, in a secondary sense; and a child born of a consumptive mother has no more liability to this disease, than one whose mother died of old age, provided the child will live in accordance with the requirements of health. The child's blood may have more or less of yeast, or fungoid growth in it; but live aright, and this yeast will die out, because the blood is no longer a fit soil for it to grow in. This yeast being removed, there remains no more tendency on the part of

a child born of consumptive parents to consumption, than there is in any other person.

**CHARITY WORK.**—Advice to a young doctor—“Having, in a long time of practice, both from choice and necessity, done a great deal of gratuitous service, I have yet to find a single case where my charity work was appreciated. Those who pay nothing always offset it by liberal abuse, which keeps away those who would pay. Your charity case may be a worthy man, but if you were making a struggle to build a house would he work for you at reduced rates (or for nothing)? It is the doctors themselves, who allow their kind feelings to overrun their judgment, that are responsible for this wholesale robbing to which every doctor in this land is subjected. We deal with the most afflicted; so does the undertaker, who is not expected to work for nothing. We can maintain no rights that we weakly yield to extortion.

The doctors are most universally regarded as rich persons who ride about for exercise, and practice for philanthropy, to be paid if everything turns out lovely; if not, they can go to the d—l and must not complain. The people who pay are always grateful; the thieves are like other dead beats, abusive and always most exacting and querulous. \* \* \* If the patient cannot pay for what might save his life, his friends or the public should. It is easier for the town to shoulder the cost than two or three poor devils who had the bad luck to study physic. Now or never is the time to put ourselves on the same footing with other business, and as we have the same losses we must ask for the same gains.—*Ca. Lancet.*

**A NEW PREPARATION OF QUININE SOLUTION IN WATER.**—In the *Centralblatt, f. d. Med. Wiss.*, June 14, Dr. Jaffe, of the Hamburg General Hospital, reports the results of the trials which he has made of a new preparation of quinine, termed *quinia bimuriatica carbamidata*, formed by Drygin from a combination of twenty parts of muriate of quinia, twelve parts of muriatic acid, and three parts of urea. The resulting salt is soluble in equal parts of water, and is, therefore, eminently suitable for the administration of large doses of quinine by the hypodermic method. The trials that have been made of it at Hamburg have proved so successful that it is highly desirable it should be more widely known. A fifty per cent. solu-

tion has always been employed, so that a Pravaz syringe full (holding one gramme) will contain a third of a gramme of the salt. The quantity injected varied from a half to three syringes full. The local irritation consequent on the injection was in most cases very slight, and at most consisted in a circumscribed burning pain (which was soon relieved by cold Goulard water), without redness or swelling. Doses of a gramme produced in men scarcely any subjective sensations, and the noises in the ear complained of by women and children soon disappeared. The anti-febrile effects were evident and certain, intermittents disappearing after the second or third injection. This form of administration seems especially indicated (1) in those sensitive persons who have an invincible objection to taking quinine by the mouth; (2) when gastric affections co-exist; (3) in children; and (4) in hospital and pauper practice, as a much smaller quantity of quinine is required than when it is administered internally.

**INTUSSUSCEPTION IN INFANTS.**—There is no absolute pathognomonic symptom of the disease, and it is difficult, particularly in the early period of the attack, to make the diagnosis. Intussusception may be confounded with acute indigestion, gastritis from poisoning, acute dysentery, colic, cholera infantum, and with other forms of internal strangulation of the intestine. The sudden development of abdominal pain in an infant above the age of three months, with persistent vomiting, soon followed by bloody stools and tenesmus, points very strongly to intussusception. If the presence of an abdominal tumor of recent occurrence can be ascertained, there can scarcely exist a doubt as to the special character of the disease. If, with the above described symptoms, a tumor can be felt in the rectum, a positive diagnosis can at once be made.

**PLUGGING THE CERVIX UTERI FOR METRORRHAGIA.**—At a late meeting of the Obstetrical Society of Paris, a discussion on the treatment of metrorrhagia was introduced, and among the various manipulative measures that were referred to, preference was given to plugging the cavity of the neck of the womb, which had several advantages over plugging the vagina in such cases. It stopped the blood more effectually, the patients bore it better, and there was less chance of putrid absorption. Each speaker

recommended his own plan; but that adopted by M. Panas seems to me the best. It consists of introducing into the cavity of the uterine neck a pledge of cotton wool, rolled up to about the thickness of a goose-quill, and steeped in a solution of the perchloride of iron of the Cordex, to which is added one part of water, to prevent its caustic effects. This being done, he introduces a ball of cotton wool and places it in the posterior *cule-de-sac* of the vagina, where it not only forms a support to the uterine plug, but it absorbs any liquid that may escape through it, and thus protects part of the vagina (which is covered with the peritoneum) from the corroding effects of the perchloride of iron and the acrid discharges from the womb.—*Med. and Surg. Reporter*.

EPILEPSY CURED BY REMOVAL OF THE OVARIES.—A woman, thirty-six years of age, had been afflicted with epileptic convulsions from the time of the first appearance of her menses, when she was in her sixteenth year. These had increased in number and in force the older she grew, until her life became so unbearable that she looked forward to death as a happy release. She was treated in all kinds of ways, even to having her teeth drawn, under the mistaken idea of nerve stretching. Her convulsions came on her at each return of the menses, and finally came as frequent as sixteen in twenty-four hours. Some place in North Germany she became impressed with the idea that her ovaries were at fault; she then came here, and, placing herself under Dr. Baun's care, told him to take out the ovaries. He at first demurred—told her of the dangers, etc. She replied she would take the risk. She preferred death to living any longer such a life. The big, fat doctor said all right, and in less time than it takes to tell it he took the ovaries out, and since then the little woman has had no fit. She has gone home very happy, feeling like she was a girl again. Close examination showed the ovaries somewhat diseased.—*Cincinnati Lancet and Clinic*.

PRESERVE THE TRACINGS of the sphygmograph by making a strong solution of the (red) ferro-cyanide of potassium. Paint this solution over some sheets of writing paper, allow the paper to dry in the dark, and keep secluded from the light. When it is required to make copy of the tracings, cut a piece of the paper of an appropriate size,

and having laid the glass upon it, face downwards, expose it for some hours to the sunlight. Then remove the paper and wash it in clear water. The curve will be found printed in blue.—*M. and S. Rep.*

SCARLET FEVER, epidemic at Springfield, Ill., is being attended with great mortality. The public schools have been ordered closed for the remainder of the year. Public funerals are prohibited, and viewing the remains of those dying of the fever is forbidden. Houses will be placarded and stringent rules be adopted to prevent the spread of the disease. Houses will be fumigated and children kept from off the streets.

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## BOOK NOTICES.

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A TREATISE ON HYGIENE AND PUBLIC HEALTH.—Edited by Alfred H. Buck, M. D., American editor of Ziemssen's Cyclopedia of the Practice of Medicine. Two volumes. 8vo. Vol. i., p. 792; vol. ii., p. 657.

This very large and valuable work was gotten up from the belief that a treatise on private and public hygiene, written with special reference to the different climates, conditions of soil, habitations, modes of life and laws of the United States, would meet with favor, not among physicians only, but also among all educated classes. The work, also, takes the place, as it were, of the first volume of the German edition of Ziemssen's *Handbuch der speciellen Pathologie und Therapie*. In the preparation of the scheme announcing a translation of it, it was thought advisable to omit the first volume of the series, relating to the subject of public health, for the reason that the book, though excellent in all other respects, treats the subject almost entirely from a German standpoint.

Whatever pertains to the hygiene or health of the individual, family, community and country is treated at large in these volumes. They are composed of articles contributed by different gentlemen, mostly physicians, each one of whom has been supposed to be especially qualified to discuss the subject allotted to him. For instance, the Introduction, consisting of seventy closely printed pages, in which, besides some prefatory remarks,

there are treated at length the "Causes of Disease," and "Jurisprudence of Hygienic," is written by John S. Billings, M.D., Surgeon U. S. Army, who has become noted for his contributions to hygienic literature; A. Jacobi, M.D., Prof. of Diseases of Children in the College of Physicians and Surgeons, New York, is author of a long article on "Infant Hygiene;" Roger S. Tracy, M.D., Sanitary Inspector of the Board of Health, New York, has an article on "Hygiene of Occupation;" "Hygiene of Coal Mines" is treated by Mr. Henry C. Sheaffer, Coal Editor of the *Miners' Journal*, Pottsville, Pennsylvania; "Inland Quarantine" has attention given it by S. S. Herrick, M.D., Secretary of the Louisiana State Board of Health. But we have not space to recite further the titles and authors of the numerous articles that appear in the two volumes of the work. What we have quoted will give an idea of the scope of the work, although it is very imperfect in outline. There are in all twenty-three contributors.

In conclusion, we will say that it is the most complete work of the kind in the English language. It is without superficialness, but is a profoundly scientific work in the treatment of all that pertains to the preservation and increase of health and strength. Every physician who aims at a high culture, who seeks to make broad his knowledge in all that has to do with his profession, will not lose time in adding it to the shelves of his library.

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THE PATHOLOGY AND TREATMENT OF VENEREAL DISEASES: By Freeman J. Bumstead, M.D., LL.D., Professor of Venereal Diseases at the College of Physicians and Surgeons. Fourth edition, revised, enlarged, and in great part rewritten by the author and by Robert W. Taylor, M.D., Professor of Skin Diseases in the University of Vermont. 138 wood cuts. 8vo., pp. 835. Philadelphia: Henry C. Lea. Cincinnati: Robert Clarke & Co. Price \$5.75.

As stated in the title page, this work has been made almost entirely a new one. It has been enlarged by 131 pages, but, as a reduced size of type has been employed, it is estimated to contain about one-half more reading matter than its predecessor. There is not a chapter in the book which has not been revised, and the attempt made to bring it up to our present knowledge. Entirely new chapters have been called for to include affections

until recently unknown. A new feature of this edition has been the introduction of chapters upon certain diseases, which, although not strictly venereal, are liable to be mistaken for such, and often come under the care of the venereal specialist. We refer particularly to affections of the scrotal organs and to some simple affections of the skin. The number of illustrations has been largely increased.

Physicians and students will find this one of the most complete works on venereal diseases in the English language. This class of affections is yearly exciting more and more importance, and demanding more and more attention from the learned; and the necessity, therefore, of being informed in regard to them is constantly increasing. The book before us, it seems to us, brought up, as it is, abreast of the knowledge of the present, affords every facility for a thorough acquaintance with them. No one in this country, probably no one in the world, holds a higher position as a specialist than Prof. Bumstead; and a work proceeding from him can not but be of high authority. The fact that it has passed through four editions, is proof conclusive of its great popularity in the profession.

It seems strange, indeed, that diseases which proceed from indulgences in the vilest propensities of men, should become of such importance as to demand the profoundest observation, study and learning of the ablest minds. But it is nevertheless a fact. These affections, more markedly, perhaps, than any others, demonstrate the truth of the statement of the Bible that the sins of the fathers are visited upon the children to the third and fourth generations, and, in consequence, they become interwoven with other diseases modifying them, and modifying the constitutions of a family or a number of families, of the members of which none have been offenders against any law of morality. A beloved minister of the gospel, who, from Sabbath to Sabbath, preaches virtue to his flock and urges the pursuit of it upon them, decrying vice as something to be shunned, may, at the same time, have his blood tainted by a disease begotten through the incontinence of a forefather several generations prior to him. So, also, the learned judge upon the bench, who metes out justice to his fellow-beings, when they become involved in crime, may be the sufferer of a vice of which he

himself has never indulged in. Considering these facts, it is not wonderful that the treatment of venereal disease commands so much learning in its study, and has so much literature upon the subject.

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DIPHTHERIA: Its Nature and Treatment, Varieties and Local Expressions. By Morell Mackenzie, M. D., London, Senior Physician to the Hospital for Diseases of the Throat and Lungs, etc. 12mo. Pp. 104. Philadelphia: Lindsay & Blakiston; Cincinnati: Robert Clarke & Co.

This little work will undoubtedly be regarded as a very valuable addition to the literature of diphtheria, which, although it consists largely of journal articles, is very considerable. Much that has been written upon the subject, except here and there an exception, as with a number of our French writers, has been of a desultory character, and not of a kind to increase one's knowledge. It is with pleasure, then, we introduce the work to the attention of our readers.

Dr. Mackenzie's opportunities of studying diphtheria have been very extensive, indeed; besides that, he has the qualifications essential to make correct observations and render deductions accordingly. A disease so obscure as diphtheria, in all its features, will have a vast amount written about it that is of no value, for the reason that not a few have not the fitness necessary for studying it—they are without proper mental training, and are not possessed of those logical powers of mind for forming reliable reasoning processes. But our author seems well qualified for the task he has undertaken.

Dr. Mackenzie speaks of diphtheria as having existed for *many* thousands of years, and, therefore, not of recent origin. He states that the "illustrious Washington" died from it, and that the unfortunate Empress Josephine, "whose family had previously shown a marked susceptibility to the affection," quickly succumbed to it. It is well known that the historians of the times state that Washington died from acute laryngitis. If, however, it was the former ailment he had, it is no wonder that death followed upon the profuse bleedings to which he was subjected by his physicians.

The work is divided into eleven chapters, giving the definition and history of the disease, its etiology, symp-

toms, paralysis, diagnosis, pathology, prognosis, treatment. Then there is described laryngo-tracheal diphtheria, nasal and secondary diphtheria.

The work will well repay an attentive study. Some new and valuable ideas will undoubtedly be gotten from its perusal. Dr. Mackenzie is conservative in his views; and it has not been his purpose to issue a sensational monogram. So far as the views of previous observers have been confirmed by his researches, he has adopted them. This is easily shown in his definition of diphtheria, which he defines as "a specific communicable disease, occurring epidemically, endemically and solitarily, and characterized by more or less inflammation of the mucous membrane of the pharynx, larynx, or air-passages, and by the formation, on the surface of these parts—especially on the mucous membrane of the fauces and windpipe—of a layer or layers of lymph or false membrane, generally showing signs of bacteroid mycosis."

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FIRST LINES OF THERAPEUTICS, AS BASED ON THE MODES AND THE PROCESSES OF HEALING, AS OCCURRING SPONTANEOUSLY IN DISEASE; AND ON THE MODES AND THE PROCESSES OF DYING, AS RESULTING NATURALLY FROM DISEASE: In a series of lectures, by Alexander Harvey, M. A., M. D., (Edinburg) Emeritus Professor of Materia Medica in the University of Aberdeen, etc. 12 mo., pp. 278. New York: D. Appleton & Co. Cincinnati: Robert Clarke & Co. Price \$1.50.

The author has written this work because the two great subjects of the Modes and Processes of Healing and Recovery, and the Modes and Processes of Dying, are but little, if at all, taught in the medical schools. On account of this omission in instruction, the author is disposed to ascribe much of the misconception that prevails in the profession in regard to the relations subsisting between nature and art in the cure of disease.

Every observing and intelligent physician, sooner or later, perceives in the course of the diseases he is treating, that there is an inherent tendency on the part of the individual to recover—to get well of himself. *A vis medicatrix naturae* exhibits itself to every medical man who does not blindly close his eyes to it. The object of the work is to impart a right knowledge and due appreciation of the powers and the resources of nature in

curing disease, and also to exhibit the fatal tendencies and the modes of fatal termination of diseases.

In discussing the subject of dying, our author states that, while all the modes may be reduced to *one*, viz: failure of the heart's action, yet there are in fact *two* primary ones. Of these two, one consists in a direct failure or suspension of the action of the heart; the other, in a direct failure of the action of the lungs. "By failure of the action of the lungs we mean, specifically, arrest of arterialization of the blood in the pulmonic capillaries. This arrest brings the circulation through the lungs to a standstill. The blood stagnates there; and this stagnation blocks the action of the heart. While, then, the several ways of dying are all of them eventually referable to a permanent cessation of the heart's action, they may, in a practical sense (nor less truly in a physiological sense), be resolved into the two ways just indicated."

The work will be found highly interesting and instructive to all. The careful student will find in it much to assist him in the treatment of diseases.

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#### THE ADVANTAGES AND ACCIDENTS OF ARTIFICIAL RESPIRATION.

A Manual of Anesthetic Agents, and their Employment in the Treatment of Disease. By Lawrence Turnbull, M. D., Ph. G., Aural Surgeon to Jefferson Medical College, etc., etc. Second edition, revised and enlarged, with twenty-seven illustrations. 12mo. Pp. 322. Philadelphia: Lindsay & Blakiston; Cincinnati: Robert Clarke & Co. 1879. Price \$1.50.

The author of this work is able to state, no doubt with no little pride to himself, that a large edition was sold in a short period of one year. This large demand is not surprising when we consider the merits of the work—containing, as it does, pretty nearly, if not altogether, all the information in regard to anesthetics, which his own extensive observation has afforded, and which he has been able to collect from every available source. In its compilation no labor has been spared—books, medical journals, essays, papers, reports, proceedings of societies, have been sedulously examined, and whatever seemed of value made use of. It is, therefore, really a *thesaurus* of knowledge as regards anesthetics.

The object of the work, as stated by the author, is "to give, in as concise a manner as possible, a description of

the most available agents that may be successfully and safely employed as anesthetics." In the second place, "to present the chief chemical tests of the purity of each substance considered," etc. Thirdly, "to exhibit the best methods of administering the various anesthetics; to give careful directions, and to state the precautions to be taken to avoid risk to the life of the patient." Fourthly, "to note the personal experience of the author, his assistants and friends, with the various forms of anesthetics and inhalers in use, not withholding the objections and experiments of other reliable investigators." Fifthly, "to compare the relative mortality from all the anesthetics now employed." Practical hints are also added on local anesthetics.

We think no physician can very well afford to do without the work. No one could better invest a dollar and a half than in purchasing it. It is worth many times the small amount asked for it.

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**A SYSTEM OF MIDWIFERY, INCLUDING THE DISEASES OF PREGNANCY AND THE PUERPERAL STATE:** By William Leishman, M.D., Professor in the University of Glasgow, etc. Third American Edition, revised by the author. With additions by John S. Parry, M.D.: with 205 illustrations. 8vo., pp. 732. Philadelphia: Henry C. Lea. Cincinnati: Robert Clarke & Co. Price \$5.50.

This work has, within a very short time, reached a third edition in this country, which certainly is the best evidence of the great value in which it is held. It has, indeed, become a standard work of the highest authority, being second to none other.

This "Third American Edition" has been prepared by the author himself for this country. In the preparation of it, such alterations have been made as the progress of obstetrical science seems to require. All the valuable additions made by Dr. Parry, the former editor of the work, now deceased, have been retained in this edition.

As a work for the use of students and practitioners, we do not know of any better. It is of convenient size, and is written in plain perspicuous language, which makes its demonstrations easily comprehended. But, while concise, there is nothing omitted necessary for the full understanding of the subjects treated. Midwifery, in all of its departments, is fully and satisfactorily treated by it.

COMPLIMENTARY DINNER GIVEN TO PROFESSOR S. D. GROSS  
BY HIS MEDICAL FRIENDS IN COMMEMORATION OF HIS  
FIFTY-FIRST YEAR IN THE PROFESSION, APRIL 10, 1879.  
Svo. Pp. 42. Philadelphia: Lindsay & Blakiston;  
Cincinnati: Robert Clarke & Co. Price \$1.

The volume before us is devoted to an account of the ceremonies of that most interesting occasion when was commemorated Prof. S. D. Gross' fifty-first year in the profession. It had been the purpose of Prof. Gross' friends to have extended to him the compliment of a dinner on the occasion of his semi-centennial professional birthday, but domestic bereavement compelled them to postpone the celebration until this year—his fifty-first year in the profession of medicine.

The St. George Hotel, Philadelphia, was the place selected for giving the dinner, and April 10th the day. On either side of the guest of the evening and the presiding officer, Prof. Agnew, were seated Profs. Flint, Sr., of New York; Benj. Silliman, of Yale College; A. Flint, Jr., of New York; Trail Green, of Easton, Penn., and Dr. Bozeman. At other prominent places were seated Profs. Wood, Post, and Sayre, of N. Y.; Yandell, of Louisville, Ky.; Otis and Norris, U. S. A.; Van Bibber and Smith, of Baltimore. Besides these, the profession of Philadelphia was represented by many of its most distinguished members.

The book contains the toasts that were given on the occasion, and the speeches that followed. The latter were generally interesting, and many contained valuable reminiscences. Also, there is printed in full quite a number of letters from gentlemen who had been invited, but were not able to attend.

A most superb steel engraving of Prof. Gross forms the frontispiece of the book.

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LONG LIFE AND HOW TO REACH IT: By J. G. Richardson, M. D. Vol. IV., American Health Primers. Philadelphia: Lindsay & Blakiston. Cincinnati: Robert Clarke & Co. Price 50c.

We have informed our readers of the publication, by Lindsay & Blakiston, of a series of "American Health Primers." This is one of them. It is well written, and will prove interesting to both the professional and unprofessional. It discusses the causes of disease, as excessive

heat and cold, contagion, impure air, improper food, loss of sleep, parasites, etc. In addition, it instructs how health is to be preserved. It gives very good suggestions in regard to proper material for clothing, describes the different kinds of baths, and the points to be considered in building our dwelling houses, and the proper methods of taking exercise. The last chapter is on "Old Age and How to Meet it," in which there is much to instruct those whose vital powers are growing weak from advance of years.

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THE PHYSICIAN'S POCKET DAY-BOOK: By Henri Leonard, M. A., of Detroit.

This little book for the pocket accommodates daily charges for twenty or forty families weekly; has complete obstetrical record for ninety-four cases, and monthly memoranda for Dr. or Cr. cash account. Like the visiting lists generally, it takes the place of a day-book, and will be found very convenient for the purpose, besides being arranged for such memoranda as a physician requires. Price \$1.00..

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## EDITORIAL.

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OUTRAGES IN LUNATIC ASYLUMS.—Recent disclosures of the management of lunatic asylums, and other charitable institutions of the State of New York, exhibit the criminality of placing such organizations under political control. In that State, as in other States of this country, they belong to the spoils of office, and are manned by those whose political party happens to be in the ascendency. Political experts, and not medical experts, are made the superintendents and physicians of the lunatic asylums and other eleemosynary institutions that fall to the management of medical men. The question, when considering the appointing of a physician to a position in one of them, is, has the candidate political influence? What has he done for the party in power? If he can establish he has claims on the party—that he has expended money freely for securing votes—that he has put himself on a level with the rabble, and rattled glasses with them—that his fealty to party is above every other motive, and all

others are sunk in it—his chances of election are good. It never occurs to these political boards of trustees that before placing a physician over a lunatic asylum, in which are hundreds of helpless beings, deprived by disease of reason, and waiting to be restored to health of body and mind, that it behooves them to be satisfied that he is a humane man and a man of learning—to know that he is skilled in his profession and has made mental disorders a study, and is qualified “to administer to a mind diseased.”

In a report that we have understood that Drs. Hammond and Spitzka have recently made, they say that the community “to this day are ignorant of the outrages constantly committed in insane asylums by irresponsible superintendents and brutal attendants.” Dr. Hammond lays particular stress on the fact that “the scandalous and outrageous mismanagement of New York insane asylums is the direct and natural outgrowth of letting these institutions be run on the political system.” As is correctly stated, they are a disgrace to civilization, and would not be tolerated in Great Britain a day. In that country a superintendent is appointed with reference to his qualifications, and holds his position during life, unless he either resigns or is removed for cause, and is not changed by any change in politics. In one case, an assistant physician of the asylum on Ward’s Island testified that he had been asked to sign a certificate that a patient had died of lung disease, when, in fact, the man had been beaten to death by the attendants, and had had twelve ribs broken.

It has been truthfully stated that New York pays enough to have her public charities managed well. As remarked by a newspaper, “it is the vile, rotten polities, into which they are dragged, that ruins them, as well as other State and municipal institutions all over the country.”

The New York Legislature awhile ago appointed a committee to investigate the management of the insane asylums of the State. But the day before the committee were to commence operations the superintendents met them, and made themselves “solid” with them. The consequence was that complainants were not permitted to bring any documentary evidence or witnesses to substantiate their charges. The evidence of the physician we have mentioned, of the asylum on Ward’s Island, was

refused to be heard. In like manner, it is said, that they ruled out whatever other evidence was of a very damaging kind; and, even then, their report was of such a damaging character that they did not dare to have it printed.

It seems to us that the members of the medical profession should endeavor to rouse the most intelligent and humane of the community to unite with them, and have this shameful wickedness of permitting the great charitable institutions of the country being the prey of politicians put an end to. Those who have near relatives and friends with minds diseased, and are compelled to place them in asylums for treatment, where only all the proper means of cure exist, desire that those that are in charge have the proper qualifications, both humane and scientific. It is a matter of no importance to such what the politics of the superintendent and his assistants are. What cares the husband of an insane wife, or the father of a lunatic son, whether the medical adviser be a Republican or a Democrat? But he does care whether or not he possesses scientific acquirements, and knows something about mental diseases.

But these abuses will not be corrected until those most interested, as the humane and intelligent, take a decided stand against their further perpetration.

Politicians will do anything to advance their interests. The primary object of all their labor is spoils; and when, therefore, a ring of them succeed in getting into power, they are not going to hold back in enriching themselves through any regard for humanity. We have societies organized for the prevention of cruelty to animals—why not have those for the prevention of cruelty to human beings? They are certainly needed. We feel quite sure that if the intelligent community, through the efforts of physicians, would set their faces against changes in the management of charitable institutions, in consequence of political changes, it would not be done. For many years the property holders of Cincinnati kept the fire department of their city out of politics; and we believe the same thing can be done throughout the different States as regards the humane organizations. It is certainly worth trying.

MEASUREMENT OF HEADS.—The interest taken by certain of the French physicians and surgeons, in the relation of the head to intelligence, is apparently increasing, and volunteers almost everywhere avail themselves of opportunities for observation. Now we have it, according to the New York *Tribune*, that measurements were taken of the heads of 190 doctors of medicine, 133 soldiers who had received an elementary instruction, 90 soldiers who could neither read nor write, and 91 soldiers who were prisoners, all connected with the *Val de Grace*. The results obtained were in favor of the doctors, as to size; the frontal diameter especially being more considerable than that of the soldiers, etc. It was found, also, that both halves of the head are not symmetrically developed in students; the left frontal region is more developed than the right, while, in illiterate individuals, the right occipital region is larger than the left. On the whole, it appeared that the heads of students who worked much with their brains, are considerably more developed than those of illiterate individuals, or such as have allowed their brains to remain inactive. Again, in students the frontal region is more developed than the occipital region—or, if there may be said to be any difference in favor of the latter, it is very small; while in illiterate people the latter region is the larger. Fresh discoveries, these!

CHANGING PHYSICIANS.—The *Medical Record* has, in a recent number, a very good article on “Consultations.” The latter part of the article takes ground opposed to the conduct of not a few physicians—of some who would not purposely offend against what is not right, viz: that a medical gentleman, who has been called in consultation with the attendant, can not supersede the latter honorably, if he becomes discharged before the patient has recovered. Says the *Record*: “The patient has a right to change his physician if he so pleases, and, having notified him to that effect (after having, of course, paid the bill), is under no more obligations to him. Any physician who would refuse to accept such a case would manifest a species of transcendental fastidiousness that could hardly be appreciated by the most upright member of the Medico-Historical Society. It is another thing, however, when a gentleman is called after having, during the same illness, attended the case in consultation. Under such

circumstances he is bound, in honor, invariably to decline having any further thing to do with the case. As it is to be presumed that through the practitioner he became known to the family—that the same practitioner, perhaps, gave him his reputation—he must not in any manner supplant him. If the latter did not actually occur sometimes, it would appear almost like an insult to honorable men to refer to it as a possibility."

**MALTINE.**—Our readers are directed to the advertisement of Messrs. Reed & Cornick to be found in our advertising form. Maltine, as prepared by this house, is a concentrated extract of malted barley, wheat and oats, and it is claimed for it to have all the medicinal and nutritious principles of these three important cereals.

Maltine can be had prepared with iron, with phosphates, with codliver oil and phosphates, with pepsine and pancreatine, with hops, etc. Our readers are aware of the great celebrity that preparations of malt have obtained in the cure of many diseases. In the preparations we speak of, it is very concentrated—containing, as is claimed, three times the amount of those elements which enter into the various tissues, such as nitrogenous material and the phosphates—those which enter into the formation of muscular and fatty tissues, bone, etc.

We recommend a trial of these preparations, for, we feel assured, they will be found exceedingly valuable in all those affections in which the system needs building up, as in all wasting diseases. The testimony of their value in consumptive diseases is too great for there to be longer any doubt in regard to it. But not only in these affections and others, but we have known them to be of essential service in chronic skin diseases. They do not act merely as a medicine, but they afford nutrition. Deprived of all foreign material, the nutritive elements are in such a form as to be readily taken into the system and assimilated. When the digestive functions are too enfeebled to properly digest ordinary food, it will be found in many cases that maltine will be appropriated.

**CALLENDER.**—George W. Callender, F. R. S. We regret to announce the death of this eminent English surgeon, which took place on board the steamship *Gallia*, which sailed from New York October 15, 1879. He arrived in

this country early in September, to visit some friends, and was taken sick at the house of Mr. Henry C. Lea, Philadelphia. His death was caused by Bright's disease. He had not the least suspicion of his disease until his urine was examined by Dr. Da Costa, in his presence, when it was found loaded with albumen, and contained large and small hyaline and granular casts, and had a specific gravity of 1.014. His age was about fifty years.

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PROF. JAMES AITKEN MEIGS.—James Aitken Meigs, M. D., Professor of Physiology and the Institutes of Medicine in the Jefferson Medical College, died at his residence in Philadelphia on November 9, 1879, in the 51st year of his age. He had been ill with what appeared to be a severe malarial attack for a few days, but his death was preceded by evidences of blood-poisoning. No post-mortem examination was permitted; the immediate cause of death must, therefore, remain a subject for conjecture, heart-clot, portal phlebitis, and discharge of hepatic abscess into the vena cava having each been suggested.—*Medical Times.*

---

PREPARATIONS OF CHAS. H. PHILLIPS.—We have before called the attention of our readers to these valuable medicines. We feel that too much praise can not be accorded them. We have tried them ourself, and know that they are all that is represented of them. A fair trial we are sure will convince our readers of this fact. After using the milk of magnesia, as made by Mr. Phillips, no physician would ever make use of any other preparation of magnesia. The other preparations in their line are of equal value. We believe they are sold by retail by Mr. Weyer, N. E. corner Elm and Sixth Streets, of this city.

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These experiments led us to the production of an extract from malted Barley, Wheat and Oats, which we call MALTINE, for brevity, and which contains all the elements of nutrition in the proportions required by the human organism, unimpaired by heat; our evaporation being conducted *in vacuo* at 110° Fahr.

MALTINE is rapidly taking the place of Extracts of Malt in Europe as well as in this country, and will unquestionably be used far more extensively throughout the world by the Medical Profession.

We are confident that a practical test of MALTINE will convince any practitioner that we justly make the following claims, viz:

*First:* That Wheat and Oats are much richer in alimentary principles than Barley, and that it is only in a combination of these cereals, in the proper proportions, that a perfect preparation can be produced.

*Second:* That our process for extracting the nutritive elements unimpaired is far superior to the German.

*Third:* That MALTINE possesses three times the nutritive and therapeutical value of any Extract of Malt in the market.

*Fourth:* That it is the only perfect food remedy ever offered to the Medical Profession.

From our experience during the past fifteen years, in closely watching the success of old and new remedies among the Medical Profession, we feel the utmost confidence in claiming that MALTINE and its compounds can be used with more positive results than any preparation now known, in cases of Dyspepsia attended with general Debility, Imperfect Nutrition and Deficient Lactation; Affections of the Lungs and Throat, such as Phthisis, Coughs, Colds, Hoarseness, Irritation of the Mucous Membranes, and Difficult Expectoration; Cholera Infantum and Wasting Diseases of Children and Adults; Convalescence from Fevers, General and Nervous Debility, and whenever it is necessary to increase the vital forces and build up the system.

MALTINE, and all productions of our house, are kept strictly and invariably in the hands of the Medical Profession.

We guarantee that MALTINE will keep perfectly in any climate, and at any season of the year. *Faithfully yours,*

REED & CARNICK,

196 & 198 FULTON STREET,

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## PROFESSIONAL OPINIONS OF MALTINE.

*During the past year we have received nearly one thousand letters from the Medical Profession in this country and Great Britain, referring to the therapeutic value of Maltine: their character is indicated by several extracts which we present below.*

BALTIMORE, MD., Jan 20th, 1879.

We have realized decided benefit in a large number of cases treated in the City Hospital, and at the Dispensary connected with it, from your preparations of Maltine. Many persons will welcome them as most efficacious and palatable substitutes for Cod Liver Oil, and as covering a wider range of application.

S. WESLEY CHAMBERS, M.D., Resident Physician, City Hospital.

BALTIMORE, MD., Jan 20th, 1879

We take pleasure in saying in behalf of your preparations of Maltine, that they have fully come up to the measure of your representations. They have given us the greatest satisfaction. We have used them extensively to the great benefit of our patients.

DAVID STREETT, M.D., Resident Physician, Maternite Hospital.

LOUISVILLE, KY., July 11th, 1879

I am using Maltine with Pepsin and Pancreatin in my family, and am exceedingly pleased with its results. Professor Flint, of your city, whom I highly esteem, has been consulted about the case and knows the solicitude I have had about it. The above preparation in Sherry, after meals, has been productive of great benefit. I am using it in the City Marine Hospital, the Kentucky Infirmary for Women and Children, and in my private practice, and am much pleased with the results obtained.

T. P. SATTERWHITE, M.D.

JACKSON, MICH., October, 1878.

In its superiority to the Extract of Malt prepared from Barley alone, I consider Maltine to be all that is claimed for it, and prize it as a very valuable addition to the list of tonic and nutritive agents.

C. H. LEWIS, M.D.

ST. CHARLES, MINN., March 23d, 1879.

In conditions of Anæmia, in convalescence from severe and protracted disease, especially in chronic cases where there is great general debility, and in the enfeebled condition of aged persons, I have learned to rely on Maltine, nor in any instance have I been disappointed of good results, therein forming a marked contrast, so far as my experience goes, to preparations of Malt, which I had used previously, and had abandoned the use of them when my attention was called to Maltine.

C. R. J. KELLAM, M.D.

36 WEYMOUTH STREET, PORTLAND PLACE, LONDON, }  
May 30th, 1879. }

I am ordering your Maltine very largely.

LEONOX BROWN, F.R.C.S., Sen. Surg., Cent. Throat and Ear Hosp., etc.

75 LEVER STREET, PICCADILLY, MANCHESTER, }  
January 16th, 1879. }

I have used your Maltine pretty extensively since its introduction, and have found it exceedingly useful; particularly in cases where Cod Liver Oil has not agreed, have I found the Maltine, with Beef and Iron, most valuable.

J. SHEPHERD FLETCHER, M.D., M.R.C.S.

EDDIE CROSS HOUSE, Ross, March 8th, 1879.

I am very pleased to bear testimony to the great value of Maltine. I prescribe it extensively and with the best results, specially in anæmic conditions of the system with much stomach irritability, which it seems to allay very speedily.

J. W. NORMAN, M.B., M.R.C.S.

## CHEMICAL REPORTS ON MALTINE.

BY R. OGDEN DOREMUS, M. D., LL.D.

Professor of Chemistry and Toxicology, Bellevue Hospital Medical College;  
Professor of Chemistry and Physics, College of the City of New York.

NEW YORK, April 17th, 1879.

I have visited the works at Cresskill, on the Hudson, where MALTINE is prepared, and spent portions of two days in witnessing the chemical processes for making the same. I was particularly impressed with the thorough cleanliness observed, as well as with the completeness of the apparatus employed for accomplishing the desired result—from the first treatment of the grains, to the concentration of the liquid product by evaporation in *vacuo*. The operation is effective in extracting the whole of the nutritive constituents of the grains of malted Barley, Wheat and Oats, with but a slight residue, and is the most complete method yet devised, with which I am acquainted, for accomplishing this object.

MALTINE is superior in therapeutic and nutritive value to any Extract of Malt made from Barley alone, or to any other preparation of any one variety of grain. From a chemical and medical standpoint, I can not commend too highly to my professional brethren this unique and compact variety of vegetable diet and remedial agent, nutritive to every tissue of the body, from bone to brain.

Respectfully,

R. OGDEN DOREMUS.

✓ BY PROF. JOHN ATTFIELD, F.C.S.

Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain;  
Author of a Manual of General Medical and Pharmaceutical Chemistry.

LONDON, 17 BLOOMSBURY SQUARE W. C. 7  
October 28th 1878. {

To Messrs. Reed & Carnick:

GENTLEMEN:—I have analyzed the extract of malted Wheat, malted Oats and malted Barley, which you term MALTINE. I have also prepared myself, some extract from these three malted cereals and have similarly analyzed it, and may state at once that it corresponds in every respect with the Maltine made by myself. As regards the various Malt Extracts in the market, I may remark that your MALTINE belongs to the non-alcoholic class, and is far richer, not only in the directly nutritive materials, but in the farina digesting Diastase. In comparison, your MALTINE is about ten times as valuable, as a flesh former; from five to ten times as valuable, as a heat producer; and at least five times as valuable, as a starch digesting agent. It contains, unimpaired and in a highly concentrated form, the whole of the valuable materials which it is possible to extract from either malted Wheat, malted Oats or malted Barley.

Yours faithfully,

JOHN ATTFIELD.

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MALTINE with Pepsin and Pancreatin.

MALTINE with Alteratives.

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MALTINE with Beef and Iron.

MALTINE with Phos. Iron, Quinia and Strychnia.

MALTINE with Cod Liver Oil and Pancreatin.

MALTINE Ferrated.

MALTINE with Cod Liver Oil and Phosphates.

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MALTINE WINE with Pepsin and Pancreatin.

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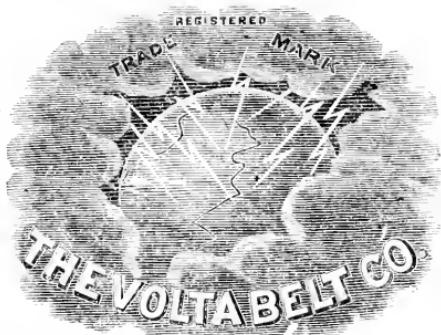
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THE scarcity and high prices of Cinchona barks and Sulphate of Quinia, and the prospect of only a slight reduction in these prices, makes the present a favorable opportunity of calling the attention of the profession to the *combination of all the bark alkaloids*.

Much attention has been given to this subject in Europe and India.

The growing appreciation by the medical profession of the United States of

## CINCHO-QUININE

is due to the fact that it retains the important alkaloids IN COMBINATION,—a combination which in practice is *preferable to perfect isolation or separation of these alkaloids.*

In addition to its superior efficacy as a tonic and anti-periodic, it has the following advantages, which greatly increase its value to physicians:—

1st, *It exerts the full therapeutic influence of Sulphate of Quinine, in the same doses, without oppressing the stomach, creating nausea, or producing cerebral distress, as the Sulphate of Quinine frequently does; and it produces much less constitutional disturbance.*

2d, *It has the great advantage of being nearly tasteless. The bitter is very slight, and not unpleasant to the most sensitive, delicate woman or child.*

3d, *It is less costly: the price will fluctuate with the rise and fall of barks, but will always be much less than the Sulphate of Quinine.*

4th, *It meets indications not met by that Salt.*

*The following well-known Analytical Chemists say:—*

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nidine. F. A. GENTH,  
*Professor of Chemistry and Mineralogy.*”

amination for quinine, quinidine, and cinchonine, and CINCHO-QUININE.”

C. GILBERT WHEELER,

*Professor of Chemistry.”*

“LABORATORY OF THE UNIVERSITY OF CHICAGO, Feb. 1, 1875.

“I hereby certify that I have made a chemical examination of the contents of a bottle of CINCHO-QUININE; and by direction I made a qualitative ex-

amination of a bottle of your CINCHO-QUININE, and find it to contain quinine, quinidine, cinchonine, and cinchonidine.”

S. P. SHARPLES, *State Assayer of Mass.*”

## TESTIMONIALS.

“WELLFLEET, MASS., Nov. 17, 1876.

“I have used CINCHO-QUININE, and can say without any hesitation that it has proved superior to the sulphate of quinine. J. G. JOHNSON, M.D.”

“MARTINSBURG, Mo., Aug. 15, 1876.

“I use the CINCHO-QUININE altogether among children, preferring it to the sulphate. DR. E. R. DOUGLASS.”

“LIVERPOOL, PENN., June 1, 1876.

“I have used CINCHO-QUININE, obtaining better results than from the sulphate in those cases in which quinine is indicated. DR. I. C. BARLOTT.”

“RENFROW’S STATION, TENN., July 4, 1876.

“I am well pleased with the CINCHO-QUININE, and think it is a better preparation than the sulphate. W. H. HALBERT.”

“ST. LOUIS, Mo., April, 1875.

“I regard it as one of the most valuable additions ever made to our *materia medica.* GEORGE C. PITZER, M.D.”

“RICHMOND, VA., March 28, 1877.

“I believe that the combination of the several cinchona alkaloids is more generally useful in practice than the sulphate of quinine uncombined.

“Yours truly, LANDON B. EDWARDS, M.D.  
*Member Va. State Board of Health, and Sec'y and Treas. Medical Society of Va.”*

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“I have used several ounces of the CINCHO-QUININE, and have not found it to fail in a single instance. I have used no sulphate of quinine in my practice since I commenced the use of the CINCHO-QUININE, as I prefer it. F. C. BATEMAN, M.D.”

“NORTH-EASTERN FREE MEDICAL DISPENSARY, 908 East Cumberland St., Philadelphia, Penn., Feb. 29, 1876.

“In typhoid and typhus fevers I always prescribe the CINCHO-QUININE in conjunction with other appropriate medicines, the result being as favorable as with former cases where the sulphate had been used.

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have now an established position throughout the civilized world as important therapeutical agents. A *perfect combination* of the two has long been a desideratum, since they are both of value in the same disorders, while the cases in which one is demanded and the other contra-indicated are exceedingly rare.

The combination in PHOSPHOROLE has the twofold advantage of furnishing *the best possible form* for the administration of *phosphorus*, and *a more effective form* for the administration of *cod-liver oil*.

With regard to the former, it has been decided by the highest chemical and medical authorities that *phosphorus* should be administered *in a free state*, and in a vehicle which ensures its *perfect diffusion*, its *absolute unalterability*, and, as far as possible, its *prompt assimilation* without the gastric irritation to which the ordinary methods of exhibiting the agent give rise. It is well known that pills, emulsions, solutions in ether, chloroform, vegetable oils and resin, etc., have all failed to fulfill one or more of these conditions. Even an ordinary solution of phosphorus in cod-liver oil would not answer the purpose in all respects. We claim, however, that PHOSPHOROLE completely satisfies all the conditions. From the method of preparing it, in an atmosphere of dry carbonic acid, the phosphorus is *entirely dissolved without oxidation*, and by our mode of manipulation *a positive uniformity of strength* is ensured. It is then promptly bottled and sealed, and its *stability and permanence* thus secured. The exact amount of phosphorus in each dose is known, its efficiency is ensured, and the irritant effects upon the stomach are reduced to a minimum by the blandness of the oil. As a means then of administering *phosphorus* in the many cases in which it is indicated as a *nervous tonic and stimulant*, it is claimed that PHOSPHOROLE is the best attainable in the present state of our knowledge.

The value of *cod-liver oil* in phthisis is so familiar to the physician that it is needless to dwell upon it. But the value of *phosphorus* is also universally recognized in this disease, especially when complicated with nervous derangements. The *combination* of the two therefore furnishes a more effective form for the administration of *cod-liver oil* in the great majority of cases in which that remedy is indicated, and one which will at once commend itself to the profession.

A dose of two teaspoonfuls of PHOSPHOROLE contains  $\frac{1}{100}$  of a grain of phosphorus. This dose, when given after a meal, is effective, and not very liable to interfere with digestion. *Phosphorus is cumulative in its action, and should be administered with watchful care.* About  $\frac{1}{2}$  grain is considered the largest safe dose, and we rarely need go higher than  $\frac{1}{20}$  or  $\frac{1}{30}$  of a grain. At the very first appearance of the smallest gastric derangement, the exhibition of phosphorus should be stopped.

PHOSPHOROLE is handsomely put up in pint bottles only, and may be obtained at all first-class druggists throughout the United States.

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This oil possesses the nourishing properties of Cod Liver Oil, and also the tonic, stimulant and alternative virtues of IODINE, BROMINE and PHOSPHORUS, which are added in such proportion as to render FOUGERA'S COD LIVER OIL FIVE TIMES STRONGER and more efficacious than pure Cod Liver Oil.

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DIRECTIONS.—Dip the plaster, a minute or two, in cold water, and apply with a band.

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This Elixir contains Iodine, Pyrophosphate of Iron, the active principle of anti-corbustive and aromatic plants, and acts as a *tonic, stimulant, emmenagogue, and a powerful regenerator of the blood*. It is an invaluable remedy for all constitutional disorders due to the impurity and poverty of the blood. One of the advantages of this new preparation consists in combining the virtues of Iodine and Iron, without the inky taste of Iodide of Iron.

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Weakness, Cough, and other sufferings in Consumption, are greatly relieved by the soothing and expectorant properties of this paste.

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This is the only complete, reliable and effective inhaler in use, arranged for the direct application of Muriate of Ammonia and other remedial agents in the state of vapor to the diseased parts of the air passages in the treatment of catarrh and diseases of the throat and lungs. No heat or warm liquids required in its use.

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*Dr. Rabuteau's Dragees* (sugar coated pills) do not blacken the teeth, and are assimilated by the most delicate stomachs without causing constipation. Dose, 2 morning and evening, at meal time.

*Dr. Rabuteau's Elixir* is especially adapted to weak persons, whose digestive functions need strengthening or stimulating.

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## BLANCARD'S PILLS OF UNCHANGEABLE IODIDE OF IRON.

Blancard's Pills of Iodide of Iron are so scrupulously prepared, and so well made, that none other have acquired a so well deserved favor among physicians and pharmacists. Each pill, containing one grain of proto-iodide of iron, is covered with finely pulverised iron, and covered with balsam of toln. Dose, two to six pills a day. The genuine have a *reactive silver seal* attached to the lower part of the cork, and a green label on the wrapper, bearing the fac-simile of the signature of

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I inclose herewith my analysis of your EXTRACT OF MALT: Malt Sugar (Glucose), 46.1; Dextrose. Hop-bitter. Extractive Matter, 23.6; Albuminous Matter (Diastase), 2.466; Ash (Phosphates), 1.712; Alkalies, .377; Water, 25.7. Total, 99.958.

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Yours truly,

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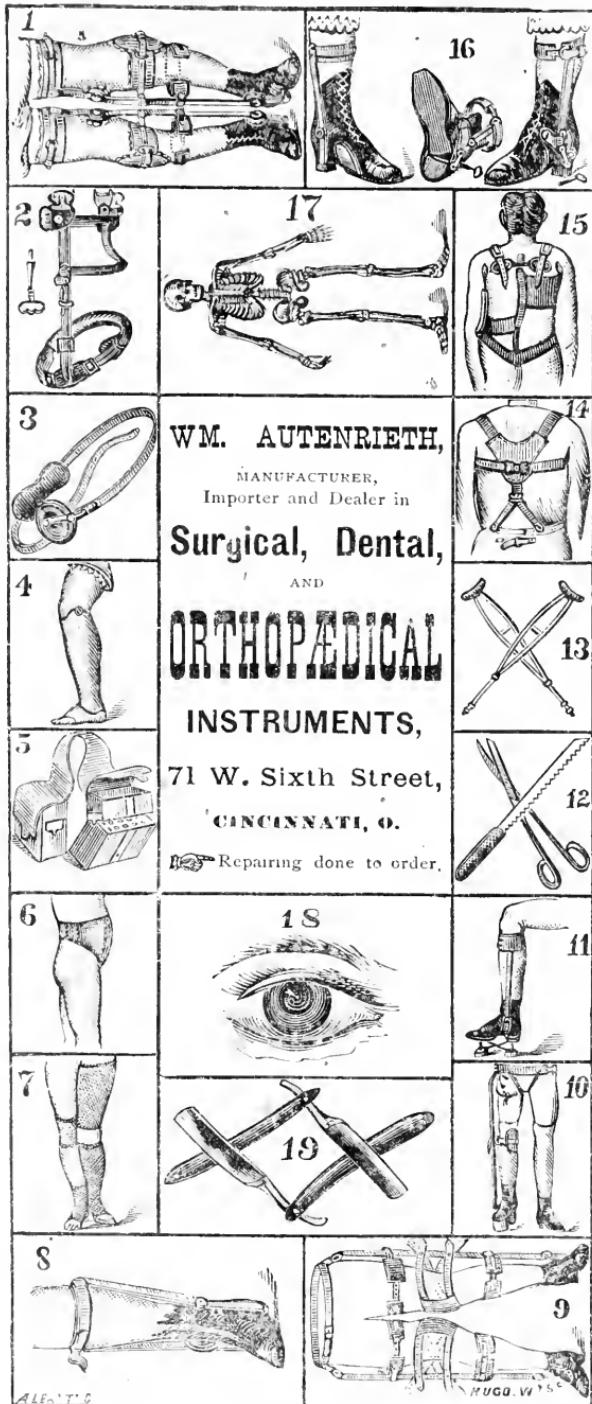
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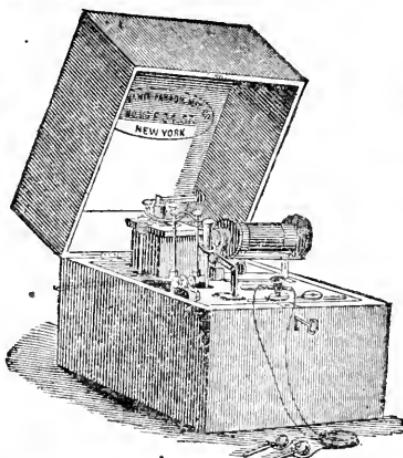
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Dr. J. Solis Cohen.  
Dr. Geo. R. Morehouse.

Names of Judges:

Prof. W. A. Hammond, M. D.  
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FRANCIS DELAFIELD, M. D.,  
Director of the Pathological Laboratory of the Alumni Association

FRANCIS DELAFIELD, M. D., Adjunct Professor of Pathology and Practical Medicine.  
JOHN G. CURTIS, M. D., Adjunct Professor of Physiology and Hygiene, Secretary of the Faculty.  
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WM. T. BULL, M. D., Assistant Demonstrator of Anatomy.  
FRANCIS DELAFIELD, M. D.,

II. KNAPP, M. D., Lecturer on Diseases of the Eye and Ear.  
T. A. McBRIDE, M. D., Lecturer on Symptomatology.  
CHAS. McBURNEY, M. D., Lecturer on the Anatomy of the Nerves.

The COLLEGiate YEAR embraces a special *Spring* and a regular *Winter* Session, attendance at the latter only being required for the graduating course. The *Spring Session* begins in March, and continues till June 1st. The *Regular Winter Session* for 1879-80 begins October 1st, and continues till March.

TUITION is by the following methods:

I. DIDACTIC LECTURES.—During the *Winter Session* from five to six lectures are given daily by the Faculty. Attendance obligatory. During the *Spring Session* two lectures are given daily by the Faculty of the Spring Session. Attendance optional.

II. CLINICAL TEACHING.—Ten Clinics, covering all departments of medicine and surgery, are held weekly throughout the entire year in the College Building. In addition, the Faculty give daily Clinics at the larger City Hospitals and Dispensaries (such as the Bellevue, Charity, New York and Roosevelt Hospitals, the New York Eye and Ear Infirmary, etc.), as a regular feature of the College Curriculum. Attendance optional.

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EXPENSES.—The necessary expenses are a yearly Matriculation fee (\$5, good for a collegiate year), the fees for the lectures of the *Winter Session* (\$20 for the course on each branch, or \$140 for the entire curriculum). The *Practical Anatomy* fee (\$10, and a small charge for material), and a Graduation fee of \$10. The graduating course requires three years' study, attendance upon two full winter courses of lectures, and upon one course of *Practical Anatomy*. Remissions and reductions of lecture-fees are made to graduates, and students who have already attended two full courses. *All fees are payable in advance*. *Board* can be had for from \$5 to \$9 a week, and the clerk of the College will aid students in obtaining it.

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Speaking of **HORLICK'S FOOD**: "Being carefully prepared, according to Liebig's Formula, by Chemists fully competent, it possesses certain advantages, such as quick and easy preparation and a pleasant flavor, and is therefore highly esteemed by those who have used it." [Page 58 of the fourth edition of *a Treatise on Diseases of Infancy and Childhood*. By J. Lewis Smith, M. D., etc.—1879.] Also, speaking in another place [page 617] of artificial food for infants, especially those suffering from intestinal catarrh, he says: "I prefer Liebig's, especially **HORLICK'S** preparation of it."

## Report from Bellevue Hospital, New York.

In *The Hospital Gazette* for February 6th, 1879 [page 108] Dr. E. Hochheimer makes a report from BELLEVUE HOSPITAL of a case of Infantile Paralysis, which was followed by an exhausting diarrhoea—Speaking of the treatment, he says: "Her condition continued unchanged for the next three weeks; she was put upon a diet consisting principally of milk, but the diarrhoea persisted in spite of opiates and astringents."

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THE PRELIMINARY AUTUMNAL TERM for 1879-'80 will begin on Wednesday, September 1, 1879, and continue until the opening of the Regular Session. During this term instruction, consisting of didactic lectures upon special subjects, and daily clinical lectures, will be given, as heretofore, by the entire Faculty, in the same number and order as during the Regular Session. Students expecting to attend the Regular Session are recommended to attend the Preliminary Term, but such attendance is not required.

THE REGULAR SESSION will begin on Wednesday, October 1, 1879, and end about the 1st of March, 1880. During this Session, in addition to four didactic lectures on every week-day except Saturday, two or three hours are daily allotted to clinical instruction.

THE SPRING SESSION consists chiefly of recitations from Text-Books. This Session begins on the 1st of March and continues until the 1st of June. During this Session, daily recitations in all the departments are held by a corps of examiners appointed by the Faculty. Short courses of lectures are given on special subjects, and regular clinics are held in the Hospital and in the College building.

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### FEES FOR THE SPRING SESSION.

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All of the 4-system Objectives of the First-class Series, from and including the  $\frac{1}{4}$  inch, upward, will, when used in immersion, resolve the *Balsam-mounted* *Amphipleura* *Pellucida*, the nineteenth band of Nobert, and every other known test-object, with good daylight and concave mirror. Their immersion angle is equivalent to above  $180^\circ$  in air.

Of the Professional Series, the  $\frac{1}{2}$  inch of  $65^\circ$  will resolve *P. Angulatum* (Moeller's) into dots by oblique light with concave mirror; the  $\frac{1}{4}$  inch, of same Series, will resolve the same test easily by mirror with central light; the *N. Rhomboides* (larger frustules, dry mounted) of Bemis Like into dots by oblique mirror-illumination; the 1-6 of  $140^\circ$ , D and I same Series, will resolve *Surirella Gemma* into dots; the  $\frac{1}{8}$  of  $160^\circ$ , D and I, will resolve *Amphipleura* *Pell.* (dry mount) by concave mirror and white-cloud illumination; and the I-18 will resolve the same test and has unusually great working distance.

Of the Student's Series, the  $\frac{1}{4}$  inch of  $100^\circ$  will resolve *P. Angulatum* by central light with mirror; and the  $\frac{1}{8}$  of  $112^\circ$  will resolve the finer lines of *Surirella Gemma*. The  $\frac{1}{2}$  of this Series is remarkable for perfect flatness of field and excellent definition.

## FIRST-CLASS OBJECTIVES.

3 inch Focal Length, $12^\circ$ Angular Aperture.....	\$15 00
2 " " 20° " "	25 00
1 " " 50° " "	40 00
$\frac{2}{3}$ " " 45° " "	30 00
$\frac{1}{2}$ " " 100° " "	50 00
$\frac{1}{4}$ " Dry and Im" 180° { As Immersion will 4 systems .....	65 00
1-6 " " " " show Balsam mounted; .....	65 00
1-8 " " " " Am. <i>Pellucida</i> , and the .....	70 00
1-10 " " " " Immersion angle is equiv- .....	70 00
1-16 " " " " alent to above $180^\circ$ in .....	100 00
1-25 " " " " air. .....	150 00
1-50 " Immersion " 175° .....	200 00
1-75 " " 175° .....	250 00

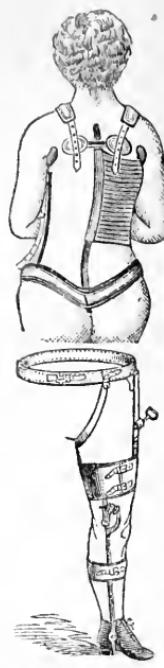
Graduated collar adjustment from  $\frac{1}{2}$  inch inclusive upward, giving rectilinear movement to the inner systems.

## PROFESSIONAL SERIES.

FOCAL LENGTH.	ANG.	PRICE.	
3 inch	$12^\circ$	\$15	
2 inch	$15^\circ$	15	
1 inch	$30^\circ$	15	
2-3 inch	$35^\circ$	18	
1-2 inch	$65^\circ$	20	
1-4 inch	$115^\circ$	20	Adjustable.
1-6 inch, D and I	$140^\circ$	25	
1-8 inch, D and I	$160^\circ$	40	
1-15 inch, Im	$160^\circ$	45	
1-18 inch, D and I	$160^\circ$	55	

## STUDENT'S SERIES.

FOCAL LENGTH	ANG.	PRICE
3 inch	$8^\circ$	\$ 6
2 inch	$10^\circ$	6
1 inch	$20^\circ$	8
2-3 inch	$30^\circ$	10
1-2 inch	$45^\circ$	10
1-4 inch	$100^\circ$	14
1-8 inch,	$112^\circ$	20
1-16 inch,	$120^\circ$	30



OLDEST HOUSE IN THE WEST!

(ESTABLISHED 1837.)

**MAX WOCHER & SON,**

MANUFACTURERS AND IMPORTERS OF

# Surgical Instruments

—AND—

## ORTHOPÆDICAL APPLIANCES.

105 West Sixth St. (Ohio Medical College Building), Cincinnati, O.

Our stock comprises a full assortment of Surgical Instruments in all its various branches, and to which we add constantly new inventions, approved of by the profession here and abroad.

*Apparatuses for all kinds of human deformities we make with all the latest improvements, as recommended by the best authorities.*

An experience of over 40 years as a practical instrument-maker together with the reputation enjoyed by us for so many years, will serve as a guarantee that all orders will be promptly and satisfactorily executed.

## FOOD FOR

# Brain, Nerve, Bone and Muscle.

SAYRE'S WINE OF THE HYPOPHOSPHITES AND BEEF.

A most perfect medicine, containing *every ingredient necessary for supplying the waste of, and sustaining the human body.* Very palatable, easily digested, and eminently suited for persons with weak digestion, for debilitated children, delicate invalids, and consumptive patients. It supplies to the blood all that is necessary to impart *tone* to the *nerves*, and *food* for *brain, bone and muscle.* Each pint contains the concentrated juice of two pounds of best beef.

180	GRAINS	HYPOPHOSPHITE OF LIME.
60	"	" SODA.
60	"	" POTASH.

Combined with the purest Sherry Wine and tonics. Dose—Dessert or tablespoonful before each meal.

## WINE OF THE HYPOPHOSPHITES.

(SAYRE'S.)

Each tablespoonful contains 10 grains Hypophosphite Lime and 5 grains each of Soda and Potash. It is pleasant of taste, gently stimulating in effect, aids digestion, increases the appetite, and is retained by the most delicate stomach. Dose—teaspoonful to dessert-spoonful.

*These Preparations are put up in pint and five-pint bottles for the trade*

PREPARED ONLY BY

**T. H. SAYRE, Dispensing Chemist**

Sixth Avenue, Corner 46th Street, New York.

In prescribing, please specify SAYRE'S Preparations

Wholesale Agents: McKESSON & ROBBINS, 91 Fulton St., New York.

ESTABLISHED, - 1848.

Silver Medal Awarded by Ohio Mechanic's Institute, 1860.

First Premium Awarded by Cincinnati Industrial  
Exposition, 1870, 1872, 1873 & 1874.

**FOR BEST GLYCERIN.**

Special Premium Awarded for Sugar Coated Pills, 1873.

First Premium Awarded for Sugar Coated Pills, 1874.

Medal of Honor and Diploma of Merit awarded by the U. S.

Centennial Commission, for Best Glycerin.

All the above premiums were awarded for superiority of my articles over those of other competitors.

**W. J. M. GORDON,**  
**Manufacturing Chemist,**  
LABORATORIES:

Eggleston Ave., Culvert & Fifth Sts., & Miami Canal, bet. Findlay & Stark Sts.

OFFICE AND WAREHOUSE:

**142 WALNUT STREET, CINCINNATI.**

New York Office: 98 Maiden Lane, P. J. FORBES, Jr., Agt.

I solicit special attention to the following articles. I offer every advantage to purchasers that can be obtained of any MANUFACTURER in this country.

Glycerin and Chemicals of all kinds; Medicinal Fluid and Solid Extracts; Resinoids and Oleo-Resins; Packed Herbs, Roots and Barks; Pure Powdered Drugs; Ground Drugs of all degrees of fineness for percolation or other use; Sugar-Coated Pills and Granules, Plasters, Ointments, Cerates, Syrups, Tinctures, Wines and Pharmaceutical Preparations generally.

Price Current furnished on application.

~~For~~ A liberal discount made according to amount purchased.

~~For~~ Special Quotations made for large quantities.

### **SUGAR-COATED PILLS.**

Of the U. S. Pharmacopœia and from Recipes of Eminent Physicians,

Prepared of the best materials, and perfectly reliable.

~~For~~ I solicit special attention to the SOLUBILITY and PERMANENCY of my SUGAR COATED PILLS. The Solubility of Sugar Coated Pills is of the very highest importance. The Judges in class 58, Cincinnati Industrial Exposition, who examined my Pills in competition with those of other manufacturers, say: "We found the Quinine Pills of Mr. Gordon's quite soft indicating a ready Solubility when taken in the stomach. While those of — were quite hard; and the coating of Mr. Gordon's Pills also was superior." And upon this the premium was awarded to me.

My facilities for the manufacture of Sugar Coated Pills and Granules are excelled by no other house in the Country and for beauty of finish and reliability cannot be surpassed. By the aid of improved Machinery I am enabled to make Pills mathematically correct in size, and sphericity, and my process (alone employed by me) in coating, whereby the use of gums and resins is discarded and the Pills enveloped in a coating of pure sugar, thereby insuring solubility and elegance.

Special attention given to the manufacture of private formulas for Pills, in lots of not less than three thousand each. As we have more than usual facilities for manufacturing Pills, parties can rely always upon getting any private formulas entrusted to our care, promptly. All such receipts are strictly confidential.

# W. J. M. GORDON'S PRICE LIST OF SUGAR-COATED PILLS.

	Price per bottle of 100 each.	Price per bottle of 500 each.		Price per bottle of 100 each.	Price per bottle of 500 each.
ACID ARSENIOUS, 1-20, 1-30, 1-40. 1-50, 1-60 gr.	\$ 40	\$ 1 75	ANTI-DYSPEPTIC, (3 grs.)	1 00	4 75
ACONITIA, 1-60 gr.	75	3 50	strychnine, 1-40 gr.		
AGUE.	75	3 50	Ext. Belladonnae, 1-10 gr.		
Chinoldin, 2 grs., Ext. Col. Co. $\frac{1}{2}$ gr. Ol. Pip Nig 1-6 gr. Ferri. Sulph. $\frac{1}{2}$ gr.			Pulv. Ipecac, 1-10 gr.		
ALOES, U. S. P.	40	1 75	Mass. Hydrarg. 2 grs.		
Pulv. Aloes Socot. 2 grs. " Saponis, 2 grs.			Ext. Coloc. Co. 2 grs.		
ALOES COMP. U. S. P.	50	2 25	ANTI-EPILEPTIC, (3 grs.)	6 00	29 75
Ext. Gent. 2-3 gr. Alo. Socot. 2-3 gr. Pul. Rhei, 1 $\frac{1}{2}$ gr. Ol. Carui. 1-5 gr.			Iron Hydrocyanate, $\frac{1}{2}$ gr.		
ALOES ET ASSAF., U. S. P.	40	1 75	Valerianate Quinine, 1 gr.		
Pulv. Aloes. Socot., 1 $\frac{1}{2}$ grs., Assafetida, 1 1-3 grs. Pulv. Saponis, 1 1-3 grs.			Zinc, $\frac{1}{2}$ gr.		
ALOES, ET MASTICH, (Lady Webster's Dinner Pills), 3 grs.	50	2 25	Ext. Valerian, 1 gr.		
Pulv. Aloes Socot., 1 $\frac{1}{2}$ gr. Gum Mastich, $\frac{1}{4}$ gr. Flor Rosae, $\frac{1}{4}$ gr.			ANTI-MALARIAL, (McCaw.)	2 25	11 00
ALOES, ET MYRRH, U. S. P.	50	2 25	Quiniæ Sulph. 1 gr.		
Pulv. Aloes Socot., 2 grs. " Myrrhæ, 1 gr. Croc. Stigmat., $\frac{1}{2}$ gr.			Ferri Sul. Exs. $\frac{1}{2}$ gr.		
ALOES, ET NUX VOMICA.	50	2 25	Ol. Res. Pip. Nig. 1-16 gr.		
Pulv. Aloes Socot., 1 $\frac{1}{2}$ grs. Ext. Nux Vomica, $\frac{1}{2}$ gr.			Ac. Arsenious, 1-80 gr.		
ALTERATIVE.	\$ 50	\$ 2 25	Gelsemin. $\frac{1}{2}$ gr.		
Mass. Hydrargyri, 1 gr. Pulv. Opii, $\frac{1}{2}$ gr. " Ipecac, $\frac{1}{2}$ gr.			Podophyllin. $\frac{1}{2}$ gr.		
AMMON. BROMID, 1 gr.	75	3 50	ANTI-SASMODIC	75	3 50
AMMON. VALERIANATE, 1 gr.	1 50	7 25	Ext. Hyoscyami, $\frac{1}{2}$ gr.		
ANALEPTIC.	60	2 75	Morphia Acetat, 1-10 gr.		
Pulv. Antimonialis, $\frac{1}{2}$ gr. " Res. Guaiaca, 1 gr. " Aloes Soc. $\frac{1}{4}$ gr. " Myrrhæ, $\frac{1}{2}$ gr.			Brom. Camphor, $\frac{1}{2}$ gr.		
ANDERSON'S SCOTS.	40	1 75	Pulv. Capsici, $\frac{1}{2}$ gr.		
Pulv. Aloes Socot. 1 gr. " Sapon. Hispan. $\frac{1}{2}$ gr. " Fruct. Colocyn. $\frac{1}{2}$ gr. " Gambogia. $\frac{1}{2}$ gr. " Oleum Anisi. $\frac{1}{2}$ gr.			ANTI-SPLENETIC	60	2 75
ANODYNE.	75	3 50	Pulv. Aloes Soc. 1 gr. " Ammoniaci, $\frac{1}{2}$ gr. " Myrrhæ, $\frac{1}{2}$ gr. Ext. Bryony. 1 gr.		
Pulv. Camphoræ, 1 gr. Morphia Acetat, 1-20 gr. Ext. Hyoscyami, 1 gr. Ol. Res. Capsici, 1-20 gr.			ANTHelmintic.	1 00	4 75
ANTI-BILLIOUS, (Vegetable).	60	2 75	Santonin. Calomel, aa. 1 gr.		
Pulv. Ext. Coloc. C. 2 $\frac{1}{2}$ grs. Podophyllin, $\frac{1}{2}$ gr.			ANTIMONIUM COMPT. U. S. P. (Pil. Calomel Comp.)	\$ 40	\$ 1 75
ANTI-CHLOROTIC.	75	3 50	Calomel.		
Potass. Chlor. 1 gr. Ferri. Chlor. $\frac{1}{2}$ gr. Pulv. Podophylli, 1 gr. Pulv. Myrrhæ, $\frac{1}{2}$ gr.			Oxysulph. Antimony.		
ANTI-CHOROMANIA.	75	3 50	Guaiacum Resin.		
Zinc. Valer. 2 grs. Ferri Valer. $\frac{1}{2}$ gr. Ext. Sumbul, $\frac{1}{2}$ gr.			ANTI-PERIODIC	80	8 75
ANTI-CHILL.	1 00	4 75	Cinchonæ Sulph. 1 gr.		
Chioiodine 1 gr. Ferri Ferrocyan. 1 gr. Ol. Piper. Nig. 1 gr. Arsenic, 1-20 gr.			Ferri Sulph. Exsic., 1 gr.		
ATRIBLUE.			Ext. Quassiae, $\frac{1}{2}$ gr.		
			Rhei., $\frac{1}{2}$ gr.		
			Pulv. Myrrhæ, $\frac{1}{2}$ gr.		
ATRIBLUE.			APERIENT	90	4 25
			Ext. Nux Vomica, $\frac{1}{2}$ gr.		
			" Hyoscyam. $\frac{1}{2}$ gr.		
			" Coloc. Comp., 2 grs.		
ATRIBLUE, DRYSALE'S.			APERIENT, MILD.	60	2 75
			Pulv. Rhei, $\frac{1}{2}$ grs.		
			" Al. Soc. 1 $\frac{1}{2}$ grs.		
			" Ipec. 5-12 gr.		
			" Nux Vomica, $\frac{1}{2}$ gr.		
ATRIBLUE, ET RHEI.			APERIENT, MILD.	50	2 25
			Ext. Col. Co., $\frac{1}{2}$ gr.		
			" Hyos. $\frac{1}{2}$ gr.		
			Pulv. Rhei., 1 gr.		
			Ol. Cari.		
APOCYNUM.			APOCYNUM, 2 grs.	70	3 25
			ASSAFETIDA, U. S. P.	40	1 75
			2 grs.	40	1 75
ASSAFETIDA, COMP.			"	40	1 75
			ASSAFETIDA, 2 grs. Ferri Sul. Exc. 1 gr.		
ASSAFETIDA, ET RHEI.			ASSAFETIDA, ET RHEI.	75	3 50
			Assafetida, 1 gr. Pulv. Rhei. 1 gr.		
			Ferrum per Hyd. 1 gr.		
ATRIBLUE.			ATRIBLUE.	60	2 75
			Ext. Geranii, 2 grs.		
			Pulv. Opii, $\frac{1}{2}$ gr.		
			Ol. Menth. pip., 1-20 gtt.		
			Ol. Res. Zangiber, 1-20 gtt.		
ATROPIA.			ATROPIA, 1-60 gr.	75	3 50

On receipt of TEN DOLLARS I will send to Physicians, Express Freight Prepaid as follows:

## Sugar-Coated Pills, Fluid Extracts and Resinoids,

As the purchaser may select, at List Price, amounting to \$15.00. I make this liberal offer as an inducement for those who have not used my article to give them a trial.

~~SO~~ A complete Price Current and Dose Book furnished on application. Pills sent by Mail in any quantity up to four pounds, at one cent per once.

Special Premium Awarded by Cincinnati Industrial Exposition, 1873.

	Price per bottle of	100	500		Price per bottle of	100	500
	each.	each.	each.		each.	each.	each.
BALLOU.....	75	3 50			CINCHONA SULPHAT, 3 grs.....	1 00	4 75
Ext. Col. Comp., 1 gr.					CINCHONA SULPHAT, 1½ gr.....	60	2 75
“ Jalap, 1 gr.					CINCHONIDIA SULPH., ½ gr.....	50	2 25
Hyd. Chlor. Mit., 1 gr.					“ “ 1 gr.....	70	3 40
Pulv. Ipec., ½ gr.					“ “ 2 grs.....	1 35	6 25
BELLADONNA EXT., (Eng.) ¼ gr.....	40	1 75			“ “ 3 grs.....	2 00	9 50
“ “ ½ gr.....	50	2 25					
“ “ 1 gr.....	60	2 75					
BISMUTH, SUR. CARE., 3 grs.....	75	3 50			COCCHIA.....	90	4 25
“ SUB-NIT., 3 grs.....	75	3 50			Res. Scamony Pure, 1 gr.		
BISMUTH ET NUX VOMICA.....	1 50	7 25			Pulv. Aloes Socot., 1½ gr.		
Bismuth Sub. Carb., 4 grs.					“ Coccoth, ½ gr.		
Ext. Nux Vomica, ¼ gr.					Potass Sulph., ½ gr.		
BISMUTH AND NUX VOMICA.....	1 50	7 25			Oil. Caryoph., ½ gr.		
Bismuth Subnit. 5 grs.							
Ext. Nux Vomica, ½ gr.							
BISMUTH AND IGNATIA.....	1 50	7 25			CODIA, 1-16 gr.....	8 05	15 00
Bismuth Sub-Carb., 4 grs.					COLOCYNTHID COMP., 3 grs. (Extract Colocynth Comp. U.S.P.)	80	3 75
Ext. Ignatia Amara, ¼ gr.					COLOCYNTH ET HYDRARG ET IPECAC. 75	3 50	
CAFFEIN CITRAT., 1 gr.....	4	50 22 25			Pulv. Ext. Coloc. Comp., 2 grs.		
CALOMEL, ½ gr., 1 gr., 2 grs., 3 grs.....	40	1 75			Pil. Hydrarg., 2 grs.		
“ 5 grs.....	50	2 25			Pulv. Ipecac., ½ gr.		
CALOMEL COMP., (Plummer's) 3 grs.	40	1 75			COLOCYNTH ET HYOSCYAMUS.....	75	3 50
Calomel.					Ext. Col. Co., 2½ grs.		
Oxysulph. Antimony.					Ext. Hyoscyamus, ½ gr.		
Guaiacum Resin.					COOK'S 3 grs.....	50	2 25
CALOMEL ET IPECAC. COMP.....	50	2 25			Pulv. Aloes Soc., 1 gr.		
Calomel, 1 gr.					“ Rhei, 1 gr.		
Powd. Ipecac, Comp., 3½ grs.					Calomel, ½ gr.		
Ext. Gentianæ, q. s.					Sapon. Hispan., ½ gr.		
CALOMEL ET RHEI.....	8	75	\$3 50		COPAIBÆ, U. S. P., 3 grs.....	50	2 25
Ext. Rhei, ½ gr. Calomel, ½ gr.					COPAIBÆ COMP.....	80	3 75
Ext. Coloc. Co., ½ gr.					Pil. Copaiæ.		
Ext. Hyoscyami, ½ gr.					Resin Guaiac.		
CAMPHOR ET HYOSCYAMUS.....	50	2 25			Ferr. Cit.		
Gum Camph., 1 gr.					Oleo-Resin Cubæ.		
Ext. Hyos. Eng., 1 gr.					COPAIBÆ ET EXT. CUBEBA.....	80	3 75
CAMPHOR COMP., 3 grs.....	90	4 25			Pil. Copaiæ, 1 gr.		
Gum Camph. 1 gr. Powd. Kino. 1 gr.					Oleo-Resin Cubæ, 1 gr.		
Powd. Opium, 1 gr. Ex. Capsi. ½ gr.					CORROSIVE SUBLIMATE, 1-12, 1-20,		
CANNABIS INDICA EXT., ¼ gr.....	60	2 75			1-30 and 1-40 grs.....	40	1 75
CATHARTIC COMP., U. S. P.....	50	2 25			DIGITALIN, 1-60 gr.....	75	3 50
Ext. Coloc. Comp., 1½ grs.					DIGITALIS COMP.....	50	2 25
“ Jalapæ, 1 gr.					Pulv. Digital. Eng., 1 gr.		
Calomel, 1 gr.					“ Scillæ, 1 gr.		
Pulv. Gambogia, 2-9 gr.					Potass. Nit. 2 grs.		
CATHARTIC. (Vegetable).....	60	2 75			DIURETIC.....	50	2 25
Ext. Coloc. Simp., ½ gr.					Sapo Hispan., Pulv. 2 grs.		
Podophyllin, ¼ gr.					Soda Carb. Exsic., 2 grs.		
Pulv. Res. Scam., ½ gr.					Ol. Baccæ Junip., 1 drop.		
“ Aloes Socot., 1½ gr.					DUPUYTREN.....	50	2 25
“ Cardamomi, 1-9 gr.					Pulv. Guaiac, 3 grs.		
Saponis, ½ gr.					Hydg. Chlor. Corros. 1-10 gr.		
CARTHARTIC COMP. (Improved)					Pulv. Opii, ½ gr.		
8 grs.....	60	2 75			ECOPROTIC.....	60	3 75
Ext. Coloc. Comp., 1 gr.					Ext. Aloes Soc., 2 grs.		
“ Jalapæ, ½ gr.					“ Nuc Vomica, 1-5 gr.		
Podophyllin, ¼ gr.					Res. Podophylli, 3-16 gr.		
Leptandrin, ½ gr.					Ol. Caryophyl., 1-10 grt.		
Ext. Hyoscyamus, ½ gr.					ELATERUM, (Clutterbuck's) 1-10 gr...	95	4 50
Gentianæ, ¼ gr.					EMMENAGOOGUE, (Mutter).....	40	1 75
Ol. Menth. Pip.					Ferr. Sulph., ½ gr.		
CATHART., COMP. CHOLAGOGUE.....	60	2 75			Aloe Socot. Pulv., ½ gr.		
Res. Podophylli, ½ gr.					Terebinth Alb., ½ gr.		
Pil. Hydrarg., ½ gr.					EMMENAGOOGUE.....	1 40	6 75
Ext. Hyoscyami, ½ gr.					Ergotiue, 1 gr.		
“ Nuc Vomica, 1-16 gr.					Ext. Hellebore Nig., 1 gr.		
Ol. Res. Capsici, ½ grt.					Aloes, 1 gr.		
CAULOPHYLLIN, 1-10 gr.....	40	1 75			Ferr. Sulph., 1 gr.		
CERIUM OXALAS, 1 gr.....	1 00	4 75			Ol. Sabina, ½ gr.		
CHAPMAN'S DINNER PILLS.....	60	2 75			FEL. BOVINUM.....	50	2 25
Pulv. Aloes Socot.					Ox. Gall. 2 grs.		
“ Rhei Opt.					Powd. Jam Ginger, 1 gr.		
Gum Mastich.					FERRI.....	8	40 31 75
CHINOIDIN, 1 gr.....	40	1 75			Pulv. Aloes Socot. ½ gr.		
“ 2 grs.....	50	2 25			“ Zingib. Jam., 1 gr.		
CHINOIDIN COMP.....	1 00	4 75			Ferr. Sulph. Exsic. 1 gr.		
Chinoidin, 2 grs.					Ext. Conii, ½ gr.		
Ferri Sniph. Exsic., 1 gr.					FERRI, (Quevenue's) 1 gr.....	50	2 25
Oleo-Resin, Pip. N. ½ gr.					“ 2 grs.....	75	3 75
CHIRETTA, EXT., 3 grs.....	1 50	7 25			“ CARE. (Vallett's) U. S. P. 3 grs	40	1 75
CIMICIFUGIN, 1-10 gr.....	40	1 75			“ CITRAT., 2 grs.....	50	2 25
					“ COMP., U. S. P.....	40	1 75
					FERRI FERROCYANID, 3 grs.....	50	2 25

**W. J. M. GORDON'S PRICE LIST OF SUGAR-COATED PILLS.**

	Price per bottle of		Price per bottle of		
	100 each.	500 each.	100 each.		
FERRI IODID, 1 gr.	65	3 00	95	4 50	
" LACTAT, 1 gr.	50	2 25	40	2 75	
" PYROPHOSPHATE, 1 gr.	40	1 75	50	2 25	
" SULPH. EXSICCATA, 2 grs.	40	1 75	3 1/2 grs.	50	2 25
" VALER, 1 gr.	1 00	4 75	IPECAC ET OPII, (Pul. Doveri, U.S.P.)	50	2 25
FERRI ET QUAS., et Nux. Vom.	75	3 50	IODOFORM, 5 grs.	65	3 00
For per Hydrogen, 1 1/2 gr.			IODOFORM, 1 gr.	1 60	7 75
Ext. Quassia, 1 gr.			IODOFORM ET FERRI.	2 00	9 75
" Nut. Vomica, 1/4 gr.			Ferrum per Hyd. 1 gr. Iodoform, 1 gr.		
Pulv. Saponis, 1/4 gr.			IRISIN COMP.	50	2 25
FERRI ET QINNLE CIT., 1 gr.	75	3 50	Irisin, 1/4 gr. Podophyllin, 1-10 gr.		
" 2 grs.	1 40	6 75	Strychnie, 1-40 gr.		
FERRI ET STRYCHNIE.	75	3 50	LAXATIVE.	60	2 75
Strychnie, 1-60 gr.			Pulv. Aloë Soc., 1 gr.		
For per Hydro (Querrennes) 2 grs			Sulphur, 1-5 gr.		
FERRI ET STRYCHNIE CIT.	75	3 50	Res. Podophyll 1-5 gr.		
Strych. Cit. 1-50 gr. Ferri Cit. 1 gr.			" Guaiaci, 1/2 gr.		
GALBANIA COMP. U. S. P.	50	2 25	" Rhannil, q. s.		
Galbanum, 1 1/2 gr.			LEPTAND COMP.	1 00	4 75
Pulv. Myrrh., 1 1/2 gr.			Leptandrin, 1 gr. Irisin, 1/4 gr.		
Asafoetida, 1 1/2 gr.			" Podophyllin, 1/2 gr.		
GAMBOGLE COMP.	40	1 75	LEPTANDRIN, 1/2 gr.	40	1 75
Pulv. Gambogia.			" 1/2 gr.	40	1 75
" Aloe Socot.			" 2 gr.	50	2 25
" Zingib. Jam.			" 1 gr.	75	3 50
" Saponis.			LUPULIN, 3 grs.	40	1 75
GENTIAN COMP.	40	1 75	" Macrotin, 1-10 gr.	40	1 75
Ext. Gentian, 1/2 gr.			" MAGNETIC, 1-10 gr.	40	1 75
Aloë Socot., 2 1/2 gr.			" MAGNESIUM ET Rhei, (1 gr. each.)	40	1 75
Pulv. Rhei, 1 1/2 gr.			" MORPHIA ACET, 1/4 gr.	70	3 25
Ol. Carui, 1-5 gr.			" SULPHATE, 1-20 gr.	40	1 75
GONORRHOE.	60	2 75	" 1-10 gr.	60	2 75
Pulv. Cubebae, 2 grs.			" " 1/2 gr.	50	3 75
Bals. Copaiabe Solid, 1 gr.			" " 2 gr.	70	3 25
Ferr. Sulph. Exsic, 1/2 gr.			" " 1/4 gr.	1 00	4 75
Terebinth, Venet. 1 1/2 gr.			" " 1/2 gr.	1 00	4 75
GELSEMIN, 1-16 gr.	40	1 75	" VALERIAN, 1/8 gr.	1 50	7 25
" 1/4 gr.	75	3 50	MORPHIA COMP.		
" 1/8 gr.	50	2 25	Morph. Sulph. 1/4 gr.		
HELONIN, 1-10 gr.	50	2 75	" Ant. et Pot. Tart. 1/4 gr.		
HEPATICA.	80	3 75	" Calomel, 1/4 gr.		
Pil. Hydrarg. 3 grs.			NEURALGIC, (Brown Squard.)	2 60	9 75
Ext. Colocynth Comp., 1 gr.			Ext. Hyoscyami, 1/2 gr.		
" Hyoscymi, 1 gr.			" Conii, 1/2 gr.		
HOOPER, (Female Pills, 2 1/2 grs.)	40	1 75	" Ignat Am. 1/2 gr.		
Aloë Socot.			" Opii, 1/2 gr.		
Ferr. Sulph. Exsic.			" Aconiti, 1/2 gr.		
Ext. Hellebor.			" Cannab. 1/2 gr.		
Pulv. Myrrh.			" Stramon, 1-5 gr.		
" Saponis.			" Bellad. 1/2 gr.		
" Canellie.			NEURALGIC, (Prof. S. D. Gross)	3 00	14 75
" Zingib. Jam.			Quinie Sulph. 2 grs.		
HYDRARGYRI, U. S. P., 3 grs.	40	1 75	Morphia Sulph. 1-20 gr.		
" 5 grs.	50	2 25	Strychnia, 1-20 gr.		
HYDRARGYRI COMP.	90	4 25	Acid Arsenious, 1-20 gr.		
Mass. Hydrarg., 1 gr.			Ext. Aconiti, 1/2 gr.		
Pulv. Opii, 1/2 gr.			NEUROALGIC, (Gross) without Morphin	3 00	14 75
" Ipecac, 1/2 gr.			Ext. Hyoscyami, 1/2 gr.		
HYDRARG, IODIDE, 1/2 gr.	40	1 75	" Conii, 1/2 gr.		
" 1/2 gr.	50	2 25	" Ignat. Am. 1/2 gr.		
" " Rhei, 1-16 gr.	40	1 75	" Opii, 1/2 gr.		
" Iod ET Opii. (Bicord's) 75	3 50		" Aconiti, 1/2 gr.		
Hydg. Iodid., 1 gr.			" Cannab. Ind. 1/2 gr.		
Pulv. Opii, 1/2 gr.			" Stramon, 1-5 gr.		
			" Belladoumæ, 1/2 gr.		

From Prof. John King, Editor American Eclectic Dispensatory, King's American Practice, etc.

" For the last five or six years I have made use a considerable quantity of Glycerin manufactured by W. J. M. Gordon, of this city, for medicinal purposes, and I have no reason whatever for complaint, as it has in every instance answered the purpose admirably. I have likewise used in my practice the leading Eclectic preparations manufactured by him, as Resin of Mandrake or Podophyllin, Leptandrin, Iridin, Aletrin, Alcoholic Extracts of Black Cohosh, as well as several Fluid Extracts, and have been much pleased with their action, as they have invariably fulfilled the indications for which they are prescribed. I therefore take great pleasure and satisfaction in recommending Mr. Gordon to the Eclectic profession as one among our many excellent manufacturers whose preparations may be relied upon."

[Signed.] JOHN KING, M. D.

FIRST PREMIUM AWARDED IN 1874.

	Price per bottle of	100	500		Price per bottle of	100	500
	each.	each.	each.		each.	each.	each.
NUX; VOMICA, EXT., $\frac{1}{4}$ gr.	40	1 75		QUINIA, ET FERRI LACT. COMP.	1 75	8 50	
" 1/2 gr.	40	1 75		Quiniae Sulph., 1 gr.			
OPII, U. S. P., 1 gr.	75	3 50		Ext. Ignati Amar., $\frac{1}{2}$ gr.			
OPII, ET CAMPHORE.	1 00	4 75		Ferril Lactat, 2 grs.			
Pulv. Opii, 1 gr. Camphore, 2 grs.				QUINIA, ET FER. ET STRYCHNIA.	1 75	8 50	
OPII ET CAMPH. ET TANNIN.	1 00	4 75		Quiniae Sulph., 1 gr.			
Pulv. Opii, 1/2 gr. Camphore, 1 gr.				Ferril Carb. (Valléts') 2 grs.			
Acid Tannic, 2 grs.				Strychn. Sulph. 1-60 gr.			
OPII ET PLUMBI ACET.	75	3 50		QUINIA ET FERRI ET STRYCH PHOS.	1 75	8 50	
Pulv. Opii, 1/2 gr.				Phos. Quiniae, 1 gr.			
Plumbi Acet, 1/2 gr.				" Iron, 1 gr.			
PHOSPHORUS, 1-50 gr.	1 00	4 75		" Strych., 1-60 gr.			
" 1-100 gr.	1 00	4 75		QUINIA, IODOFORM and IRON.	3 60	14 75	
PHOSPHORUS COMP.	1 25	6 00		Iodoform, 1 gr.			
Phosphorus, 1-100 gr.				Ferril Carb. (Valléts') 2 grs.			
Ext. Nux Vomica, $\frac{1}{4}$ gr.				Quiniae Sulph., $\frac{1}{2}$ gr.			
PHOSPHORUS, IRON & NUX VOMICA.	1 75	8 50		QUINIA, VALERIANATE, $\frac{1}{2}$ gr.	2 00	9 75	
Phosphorus, 1-100 gr.				" ET FERRIVALER., 2 grs.	3 50	17 25	
Ferril Carb. (Valléts') 1 gr.				QUINIA ET HYDRAUG.	1 75	8 50	
Ext. Nux Vomica, $\frac{1}{4}$ gr.				Quiniae Sulph., 1 gr.			
PODOPHYLLIN, 1-10 gr.	40	1 75		Mass. Hydrarg, 2 grs.			
" $\frac{1}{2}$ gr.	40	1 75		Oleo-Resin. Pip. Nig., $\frac{1}{2}$ gr.			
" $\frac{1}{2}$ gr.	60	2 25		QUINIA ET Strychnia.	1 75	8 50	
" 1 gr.	75	3 50		Quin. Sulph., 1 gr.			
PODOPHYLLIN COMP.	75	3 50		Strychnia, 1-60 gr.			
Podophyllin, $\frac{1}{2}$ gr.				QUINIA ET ZINCI. VALER.	4 00	19 75	
Ext. Hyoscyamus, $\frac{1}{2}$ gr.				Quin. Valer. 1 gr. Zinci. Valer. 1 gr.			
" Nux Vom., 1-16 gr.				RHEI, U. S. P.	75	8 50	
PODOPHYLLIN ET BELLADONNA.	75	8 50		Pulv. Rhei, 3 grs.			
Podophyllin, $\frac{1}{2}$ gr.				" Saponis, 1 gr.			
Ext. Bellad., $\frac{1}{2}$ gr.				RHEI, COM. U. S. P.	75	8 50	
OL. Res. Capsici, $\frac{1}{2}$ gr.				Pulv. Rhei, 2 grs.			
Succari Lact. 1 gr.				Pulv. Aloes Socot., 1 $\frac{1}{2}$ grs.			
PODOPHYLLIN COMP. (Eclectic).	75	8 50		" Myrrh, 1 gr.			
Podophyllin, $\frac{1}{2}$ gr.				Ol. Menth. Pip.			
Leptandrin, 1-16 gr.				RHEI ET HYDRAUG.	1 00	4 75	
Juglandin, 1-16 gr.				Pulv. Rhei,			
Macrotin, 1-32 gr. OL. Capsaci.				Mass. Hydrarg, 2 grs.			
PODOPHYLLIN ET HYOSCYAMUS.	60	2 75		Soda Carb. Ext.			
Podophyllin,				RHEUMATIC.			
Ext. Hyoscyamus, ea $\frac{1}{2}$ gr.				Ext. Coloc. Co., 1 $\frac{1}{2}$ grs.			
PODOPHYLLIN ET HYDRAUG.	50	2 25		" Colchi Acet., 1 gr.			
Podophyllin, $\frac{1}{2}$ gr.				" Hyoscyami, $\frac{1}{2}$ gr.			
Pil. Hydrarg, 2 grs.				Hyd. Chlor. Mit., $\frac{1}{2}$ gr.			
POTAS BROMID, 1 gr.	75	3 50		SANTONIN, 1 gr.	1 00	4 75	
" 5 grs.	1 25	6 00		SALICINE, 1 gr.	75	3 50	
" IODID, 2 grs.	85	4 00		" 2 grs.	1 25	6 00	
" PERMAG. CRYST., $\frac{1}{2}$ gr.	50	2 25		SCILLAC COMP. U. S. P.	60	2 25	
QUINIA SULPH., $\frac{1}{2}$ gr.	1 10	5 20		Pulv. Scillace, $\frac{1}{2}$ gr.			
" 1 gr.	1 50	7 55		" Zin. Jamaica, 1 gr.			
" 2 grs.	3 30	16 25		Gum Ammoniac, 1 gr.			
" 3 grs.	4 40	21 75		Pulv. Sapomia, 1 $\frac{1}{2}$ grs.			
QUINIA VALERIANATE, $\frac{1}{2}$ gr.	2 00	9 75		SEDATIVE.	75	8 50	
" 1 gr.	3 50	17 75		Ext. Sumbul, $\frac{1}{2}$ gr.			
" 2 grs.	4 00	19 75		" Valerianæ $\frac{1}{2}$ gr.			
QUINIA COMP.	1 75	8 50		" Hyoscyami, $\frac{1}{2}$ gr.			
Quiniae Sulph., 1 gr.				" Cannab. Ind., 1-10 gr.			
Ferril per Hydrogen, 1 gr.				SILVER NITRATE, $\frac{1}{2}$ gr.	75	3 50	
Acid Arsenious, 1-60 gr.				SILVER IODIDE, $\frac{1}{2}$ gr.	75	3 50	
QUINIA ET COLOCYNTH COMP.	2 25	11 00		STOMACHICCE, (Lady Webster's Diner Pills.) 3 grs.	50	2 25	
Quiniae Sulph., 1 gr.				Pulv. Aloes Socot.			
Ext. Col. Comp., 1 gr.				Gum Mastich. Flor. Rosse.			
" Ignat. Amar., $\frac{1}{2}$ gr.				STRYCHNIA, 1-20, 1-30, 1-40, 1-50, 1-60 gr.	40	1 75	
Piperinc, $\frac{1}{2}$ gr.				SYPHILITIC.			
Morph. Sulph., 1-12 gr.				Potass. Iodid., 2 $\frac{1}{2}$ grs.	1 00	4 75	
QUINIA ET EXT. BELLADONNE.	1 75	8 50		Hyd'g Chlor. 1-40 gr.			
Quiniae Sulph., 1 gr.				TART EMITIC, 1-20, 1-10, $\frac{1}{2}$ gr.	40	1 75	
Ext. Belladon., $\frac{1}{2}$ gr.				TONIC.			
QUINIA ET FERRI CARB.	1 75	8 50		Ext. Gentianæ, 1 gr.			
Quiniae Sulph., 1 gr.				" Humuli, $\frac{1}{2}$ gr.			
Ferril Carb. (Valléts') 2 grs.				Ferril Carb. Sacch., $\frac{1}{2}$ gr.			
QUINIA ET FERRI FEROCYAN.	2 25	11 00		Ext. Nux Vomica, 1-20 gr.			
Quiniae Sulph., 1 gr.				Res. Podophylli, 1-25 gr.			
Ferril Ferrocyan, 1 gr.				Ol. Res. Zingiber, 1-10 gr.			
Oleo-Ros. Capsici, 1-20 gr.				TRILLIN, 1-10 gr.	50	1 25	
Gelsemin, 1-20 gr.				TRIPLEX.			
Podophyllin, 1-20 gr.				Aloes Socot. 2 grs. Pil. Hydrarg, 1 gr.	75	3 50	
Strychnia, 1-60 gr.				Podophyllin, $\frac{1}{2}$ gr.			
QUINIA ET FERRI.	1 75	8 50		VERATRIA SULPHATE, 1-12 gr.	1 25	6 00	
Quin. Sulph. 1 gr.				ZINCI VALERIANATE, 1 gr.	50	4 75	
Ferum per Hydrogen, 1 gr.							

# W. J. M. GORDON'S FLUID EXTRACTS.

	Per Pint.	Per Pint.	
Aconite Leaves, <i>Aconitum Napellus</i> .....	\$1 90	Cherry Bark, Wild, <i>Prunis Virg.</i> .....	1 75
" Root, " " ".....	2 00	" " Comp.....	1 75
Agrimony, <i>Agrimonia Eup.</i> .....	1 75	Chestnut Leaves, <i>Castanea Americana</i> .....	2 00
Alotris, <i>Altris Far.</i> .....	2 25	Chiretta, <i>Agath Chir.</i> .....	4 00
Aloes.....	2 75	Cinnamon Bark, "Ceylon," <i>Cassia</i> .....	3 00
Allspice, <i>Eugenia Pimenta</i> .....	2 00	Cinchona Arouca.....	4 25
Am. pelopon., <i>Ampeleopsis Quinq.</i> .....	2 00	Cinchona, Cal. U. S. P. ....	4 25
Am. Valerian, Lady's Slipper, <i>Cypripedium</i> .....	2 25	" Comp.....	2 50
Angelica Root, <i>Angelica</i> .....	1 25	" Palad.....	2 50
Angustura Bark, <i>Gilepta Off.</i> .....	4 00	" Rub.....	4 25
Anise Seed, <i>Pimpinella Anisum</i> .....	3 00	Cleavers, <i>Gallium</i> .....	1 25
Apple-tree Bark, <i>Pyrus Malus</i> .....	1 50	Cloves, <i>Carum phyllus Arom.</i> .....	2 00
Arnica, <i>Arnica Montana</i> .....	1 75	Clover Heads, <i>Trifolium Pratense</i> .....	2 00
Arnica Root.....	2 25	Coca, <i>Erythroxylon coca</i> .....	7 50
Aromatic.....	2 25	Cochineal, <i>Coccus Cacti</i> .....	4 00
Asparagus, <i>Asparagus Offic.</i> .....	1 25	Coffee, <i>Coffea Arabica</i> .....	3 00
Ash, Black, <i>Fraxinus Samb.</i> .....	2 00	Colchicum Root, <i>Colchicum Autumnale</i> .....	2 00
Ash, White, <i>Fraxinus Acum.</i> .....	2 00	Colchicum Seed, <i>Colchicum Autumnale</i> .....	2 75
Avens Root, <i>Geum Reticul.</i> .....	1 50	Collinsonia, <i>Collinsonia Can.</i> .....	1 75
Balsam Fir, <i>Fucus Vesic.</i> .....	1 50	Colocynth, <i>Colocynthis</i> .....	2 25
Balm, Sweet, <i>Melisa</i> .....	1 25	Colocynth Comp.....	2 25
Balm Gilthead.....	1 50	Columbó, <i>Cocculus Palmatus</i> .....	2 50
Balmy, <i>Chelone Glabra</i> .....	1 25	" Amer., <i>Frasera</i> .....	1 25
Barberry Bark, <i>Berberis</i> .....	1 25	Coltsfoot, <i>Tussilago</i> .....	1 50
Bayberry, <i>Myrica Cerebra</i> .....	1 25	Comfrey, <i>Symphytum</i> .....	1 50
Bayberry Comp., <i>Myrica Cerebra</i> .....	1 25	Condurango.....	4 00
Bear'sfoot, <i>Polytmus Uved.</i> .....	4 00	Conium, <i>Conium Maculatum</i> .....	2 00
Belladonna Atrop., <i>Belladonna</i> .....	2 50	Conium Seed, <i>Conium Mac.</i> .....	2 50
Belladonna Root, <i>Atropa Belladonna</i> .....	2 50	Coriander Seed, <i>Ceratodon Satiuum</i> .....	2 00
Beth Root, <i>Trillium</i> .....	1 75	Cotton Root Bark, <i>Gossypium Herbacum</i> .....	3 00
Bitter Root, <i>Apocynum Andros.</i> .....	2 00	Cramp Bark, <i>Ulmus</i> .....	1 50
Bittersweet, <i>Dulcamara</i> .....	1 50	Cranesbill, <i>Ceratium Maculatum</i> .....	1 75
Bladder Root.....	4 50	Crawley .....	3 50
Black Alder, <i>Rinos Vertic</i> .....	1 50	Cubeb, <i>Alchorhola</i> , <i>Cubeba</i> .....	2 50
Black Haw, <i>Viburnum Prun.</i> .....	1 75	" Ecularial, <i>Oleo-Resin.</i> .....	7 35
Blackberry Root, <i>Rubus Vilosus</i> .....	1 50	Culver's Root, <i>Leptandra Virg.</i> .....	2 00
Black Cohosh, <i>Cimicifuga</i> .....	2 00	Celery Seed.....	3 00
Black Cohosh Comp.....	2 00	Couch Grass, <i>Triticum Rep.</i> .....	2 00
Black Hellebore, <i>Helleborus Niger</i> .....	1 75	Damiana.....	6 00
Black Pepper, <i>Piper Nigrum</i> .....	1 75	Dandelion, <i>Taraxacum</i> .....	2 00
Bloodroot, <i>Sanguinaria Canad.</i> .....	1 75	" Comp.....	2 00
Blue Cohosh, <i>Caulophyllum</i> .....	1 50	" and Senna.....	1 75
Blue Cohosh Comp.....	2 00	Dewberry Root, <i>Rubus Trivialis</i> .....	1 50
Blue Flag, <i>Iris Versicolor</i> .....	1 75	Deer Tongue, <i>Leatris Odor.</i> .....	2 00
Boneset, <i>Eupatorium Perfol.</i> .....	1 25	Dog Wood, <i>Cornus Flor.</i> .....	1 25
Boxwood, <i>Cornus Florida</i> .....	1 50	Dragon Root, <i>Arau Triphyllum</i> .....	2 50
Broom Tops, <i>Scoparius</i> .....	1 75	Dwarf Elder, <i>Arlia Hispida</i> .....	1 25
Bryonia, White, <i>Byronia Alb</i> .....	2 50	Evening Primrose, <i>Oenothera Eien</i> .....	4 00
Buchen, <i>Barosma</i> .....	2 50	Elder Flowers, <i>Samucus</i> .....	1 50
" Comp.....	2 50	Elecampane, <i>Inula</i> .....	1 25
Buchen and Pareia Brava.....	3 50	Ergot and Coton Root.....	3 50
Buckthorn, <i>Rhamnus Cath.</i> .....	1 50	Ergot Acet, <i>Secaleoruvan</i> .....	5 00
Buckthorn Berries.....	1 50	Ergot, <i>Ergota</i> .....	5 00
Buckthorn Brako, <i>Osmunda Regalis</i> .....	2 00	Ergot Ethereal.....	6 00
Bugleweed, <i>Lycopus Virginica</i> .....	1 50	Eucalyptus, <i>Globulus</i> .....	4 50
Burdock, <i>Lappa Minor</i> .....	1 50	Euphrasia, <i>Euphrasia Off.</i> .....	1 75
Burdock Seed.....	1 50	False Unicorn Root, <i>Helonias Biocata</i> .....	3 00
Butternut, <i>Juglans</i> .....	1 25	Fennel Seed, <i>Foeniculum Vulgare</i> .....	2 00
Button Snake Root, <i>Liatra Spathicata</i> .....	1 50	Fern, Sweet, <i>Comptonia</i> .....	1 25
Buckthorn Bark, <i>Rhamnus Frang.</i> .....	2 00	Fever Bush, <i>Benzoina Odoriferum</i> .....	1 25
Cactus Grandiflora.....	18 00	Fever Tree, <i>Eucalyptus Glob.</i> .....	6 00
Caenothus, <i>Americana</i> .....	2 00	Feverfew, <i>Purcellrum</i> .....	1 25
Calabar Bean.....	6 00	Figwort.....	1 75
Calamus Root.....	2 00	Fireweed, <i>Frekthites</i> .....	1 50
Calendula Flos.....	4 00	Fleabane, <i>Erigeron</i> .....	1 50
Cancer Root, <i>Orobanchio Virginia</i> .....	2 25	Foxglove, <i>Digitalis</i> .....	1 75
Canella, <i>Canella Alta</i> .....	1 50	Fringe Tree, <i>Chionanthus Virg.</i> .....	3 00
Cannabis Indica.....	3 50	Frostwort, <i>Helianthomum</i> .....	1 50
Cantharides.....	5 00	Galls, <i>Galla</i> .....	2 75
Caraway Seed.....	3 00	Garden Celandine, <i>Chelidonium</i> .....	1 50
Cardamon Seed.....	7 50	Garlic, <i>Allium Sativum</i> .....	2 00
Cardamon Seed Comp.....	3 00	Getseminum, <i>Gels. Semp.</i> .....	2 50
Carpenter Square, <i>Scrophularia Mar.</i> .....	1 75	Gentian Gentiana Lutea.....	1 50
Castor Leaves, <i>Ricinus Coms.</i> .....	3 00	" Compound.....	1 75
Cascarilla, <i>Croton Eleuteria</i> .....	1 00	Ginger, <i>Zingiberis</i> .....	2 25
Castor Oil Bean.....	3 00	Goldenrod, <i>Solidago</i> .....	1 25
Castor Oil Bean Arom.....	3 00	Golden Seal, <i>Hydrastis</i> .....	2 00
Cassia, <i>Cinnamomum</i> .....	3 00	Gold Thread, <i>Coptis</i> .....	1 75
Catnip, <i>Nepeta Caturie</i> .....	1 25	Gravel Plant, <i>Epigaea Repens</i> .....	1 75
Catechu.....	2 00	Greek Valerian.....	1 75
Cayenne, <i>Capiscum</i> .....	3 00	Guaiac Wood, <i>Guaiacum Off.</i> .....	1 50
Centaury, Red, <i>Sibthoria</i> .....	1 50	Guanosa, <i>Paulinia Sorbilis</i> .....	10 00
Chamomile, <i>Anthemis</i> .....	1 75	Grindelia Robusta.....	4 00
Checkerberry, <i>Mitchella Repens</i> .....	1 25	Hardhack, <i>Spirwa Tomentosa</i> .....	1 25

W. J. M. GORDON'S PRICE LIST OF FLUID EXTRACTS.

	Per Pint.	Per Pint.	
Hellebore, American, <i>Vetiverum Viride</i> .....	\$2 00	Pink Root, <i>Comp</i> .....	2 50
" Black, <i>Helaebous Nig</i> .....	1 75	" " <i>Spigelia Maritima</i> .....	2 50
" " White, <i>Veratrum Alb</i> .....	2 00	" " and <i>Senna</i> .....	2 00
Hemlock, <i>Pinus Canadensis</i> .....	1 25	Pipsissewa, <i>Chimaphila Umb</i> .....	1 50
Heubane, <i>Hyoscyamus</i> .....	2 50	Pitcher Plant, <i>Sarracenia Purpurea</i> .....	2 50
High Cranberry, <i>Viburnum Opulus</i> .....	1 50	Plantain Leaves, <i>Plantago Major</i> .....	1 50
Hoarhound, <i>Morrubium</i> .....	1 50	Pleurisy, <i>Asclepias Tub</i> .....	2 00
Hops, <i>Humulus</i> .....	2 50	Poke Berries, <i>Phytolacca Patca</i> .....	1 75
Horse Rrdish, <i>Cochlearia Armor</i> .....	2 00	Poison Oak, <i>Rhus Tax</i> .....	3 00
Horsemint, <i>Monarda</i> .....	1 50	Poke Root, <i>Phytolucco Dec</i> .....	1 50
Hydrangea, <i>Hydrangea Abariscens</i> .....	1 75	Poplar Bark, <i>Populus</i> .....	1 25
Hyssop, <i>Hyssopus</i> .....	1 50	Poppies, <i>Popaver Somniferum</i> .....	1 75
Ignatia Bea, <i>Ignatia Amara</i> .....	3 50	Pomegranate Bark, <i>Punica Granatum</i> .....	3 00
Indian Hemp, <i>Apocynu Canup</i> .....	2 00	Pond Lilly, <i>Nymphaea Odorata</i> .....	1 25
" Foreign, <i>Canabis Indica</i> .....	3 50	Prickly Ash, <i>Xanthoyleum</i> .....	1 75
" " White, <i>Asclepias Inc</i> .....	1 75	" Berries, <i>Xanth. Bacc</i> .....	3 00
" " Physic, <i>Gillenia Tisfoliata</i> .....	1 25	Ptelea, <i>Ptelea Trifoliata</i> .....	2 00
" Turnip, <i>Arum Taiph</i> .....	1 50	Puisallia.....	2 50
Ipecac, American, <i>Gillenia</i> .....	1 50	Pumpkin Seeds, <i>Cucurbita Pepo</i> .....	3 00
Ipecac, <i>Cephaelis Ipecacuanha</i> .....	6 00	Quassia, <i>Simaruba Ercelsa</i> .....	1 80
" and Seneka.....	6 00	Queen of Meadow, <i>Eupatorium Purp</i> .....	1 50
Jalap, <i>Jalapa</i> .....	4 00	Raspberry Leaves, <i>Rubus Strig</i> .....	1 50
Jersey Tea, <i>Ceanothus Armor</i> .....	1 50	Red Root, <i>Ceanothus Amer</i> .....	2 00
Jaborandi, <i>Pilocarpus Pimatus</i> .....	7 50	Red Saunders, <i>Santalinaum Rubrum</i> .....	1 25
Johnswort, <i>Hypericum</i> .....	1 25	Rhatany, <i>Krameria</i> .....	2 00
Juniper Berries, <i>Juniperis Communis</i> .....	1 25	Rhubarb, <i>Rheum</i> .....	5 00
Kino.....	2 00	" Aromatic.....	4 75
Kousso, <i>Brayera Anthelmintica</i> .....	7 50	" and Potass.....	4 00
Ladie's Slipper, <i>Cypripedium Pubescens</i> .....	2 25	" and Senna.....	4 00
Larkspur Seed, <i>Delphinium Consoida</i> .....	1 00	Rosin Weed, <i>Siphium</i> .....	3 00
Laurel Leaves, <i>Kalmia</i> .....	1 75	Rue, <i>Ruta Gravolens</i> .....	2 00
Lemon Peel, <i>Ditrus Limonum</i> .....	1 25	Saffron, <i>Crocus Sativus</i> .....	4 00
Lettuce, <i>Lactuca Salvia</i> .....	1 50	Sage, <i>Selvia Officinalis</i> .....	1 50
Licorice, <i>Glycyrrhiza Glabra</i> .....	1 50	Sarsaparilla, Amer.....	1 50
Life Root, <i>Senecio Aureus</i> .....	1 50	" Compound.....	2 25
Lily White, Pond, <i>Nymphaea</i> .....	1 25	" Smilac.....	2 25
Liverwort, <i>Hepatica Americana</i> .....	1 50	" for Syr, <i>Sarsaparilla Comp</i> .....	2 25
Lobelia, <i>Lobelia Inflata</i> .....	1 75	" and Dandelion.....	2 50
Lobelia Seed, <i>Lobelia Inflata</i> .....	2 50	Sassafras, <i>Sassafras Offc</i> .....	1 40
" Comp.....	1 75	Saudal Wool, <i>Saulaluno Alb</i> .....	5 00
Log wood, <i>Haematoxylon</i> .....	1 25	Savine, <i>Juniperus Savina</i> .....	1 50
Lovage, <i>Ligusticum Leviti</i> .....	1 50	Savory, <i>Satureja Hostensis</i> .....	1 50
Lungwort, <i>Pulmonaria</i> .....	1 50	Scull Cap, <i>Scutellaria</i> .....	2 25
Lupulin, <i>Lupulina</i> .....	3 50	Scullcap, <i>Comp</i> .....	1 75
Lupulin, <i>Comp</i> .....	3 00	Senecio, <i>Senecio Grac</i> .....	1 50
Malt.....	2 00	Seneka, <i>Polygala Senega</i> .....	4 90
Myrrh.....	2 00	Senna, <i>Cassia Acutifolia</i> .....	1 50
Mace, <i>Myristica Fragrana</i> .....	5 00	" Compound.....	2 20
Maidenhair, <i>Adiant Ped</i> .....	1 50	" and Dandelion.....	1 40
Male Fern.....	1 50	" and Jalap.....	3 00
Mandrake, <i>Comp</i> .....	1 75	" and Rhubarb.....	4 70
Mandrake, <i>Podophyllum</i> .....	1 75	Sheep Laurel, <i>Kalmia Lat</i> .....	2 00
Marsh Mallow, <i>Althaea Off</i> .....	1 50	Silk-weed, <i>Asclepius Syr</i> .....	2 00
Marsh Rosemary, <i>Statice Limonum</i> .....	1 25	Sinatra, <i>Simaruba Offc</i> .....	3 20
Masterwort, <i>Heracleum Lunatum</i> .....	2 00	Skunk Cabbage, <i>Dracontium</i> .....	1 50
Matico, <i>Arantia Elongata</i> .....	3 00	Snake Root, <i>Virginia Serpentaria</i> .....	3 00
Mezereon Bark, <i>Mesereum</i> .....	2 00	Soap Tree Bark, <i>Quillaga Sapon</i> .....	2 00
Motherwort, <i>Leonurus</i> .....	2 00	Sopwort, <i>Saponaria</i> .....	1 50
Mountain Ash Bark, <i>Sorbus Acap</i> .....	1 50	Solomon's Seal, <i>Cone. Polygonatum</i> .....	1 50
Mugwort, <i>Artemisia</i> .....	1 25	Southernwood, <i>Artem Abrotanum</i> .....	1 50
Musk Root, <i>Sambal</i> .....	3 50	Speedwell, <i>Veronica Off</i> .....	2 00
Mullein Leaves, <i>Verbascum</i> .....	1 25	Spearmint, <i>Mentha Viridis</i> .....	1 25
Nettle, <i>Urtica Diociu</i> .....	1 50	Spicewood Berries, <i>Comp</i> .....	3 00
Nutmegs, <i>Gala</i> .....	1 50	Spikenard, <i>Aralia Racemosa</i> .....	1 50
Nutmeg, <i>Myristica</i> .....	5 00	Squaw Vine, <i>Mitchella Rep</i> .....	2 00
Nutmegs <i>Myristica Frag</i> .....	6 00	Squill, <i>Scilla Marliena</i> .....	1 50
Nux Nomica, <i>Strychnos Nax Vomica</i> .....	2 25	" Compound.....	3 00
Oak Bark Red, <i>Qaercas Rab</i> .....	1 25	Staphysagria.....	4 50
Opium, Aqueous, Strength of <i>Laudanum</i> .....	3 50	Star Grass, <i>Aletris</i> .....	2 00
" Deodorized.....	3 50	Stillingia, <i>Stillingia Silvatitu</i> .....	2 50
Orange Comp, <i>Aurant Cort</i> .....	3 00	" Compound.....	2 50
Orange Peel, <i>Aarantion</i> .....	1 50	Stone Root, <i>Collinsonia</i> .....	1 75
Orange Peel Bitter, <i>Citras Valguras</i> .....	1 50	Stramonium Leaves, <i>Stram Fol</i> .....	1 75
Orris Root, <i>Iris For</i> .....	1 75	" Seed.....	1 75
Pareira Brava, <i>Cissampelospeles Pareira</i> .....	4 00	St. John's Wort, <i>Hypericum</i> .....	1 55
Parilla Yellow, <i>Menisp. Can</i> .....	1 40	Sumach, <i>Rhus Glabram</i> .....	1 25
Partridge Berry, <i>Comp</i> .....	1 50	Sumach Berries, <i>Rus Glabram</i> .....	1 25
Partridge Berry, <i>Mitchella Repens</i> .....	1 75	Summer Savory, <i>Satureja Hort</i> .....	1 50
Peach Free Bark, <i>Amygdalus Persica</i> .....	1 50	Sundew, <i>Drosera Rotundifolia</i> .....	4 50
Pellitory, <i>Pyrethrani</i> .....	2 00	Sunflower Seed.....	1 75
Pennyroyal, <i>Hedeoma Pulegioides</i> .....	1 50	Sweet Fern, <i>Comptonia Asp</i> .....	1 00
Peppermint, <i>Mentha Pepperita</i> .....	1 25	Sweet Flag, <i>Acorus Calamus</i> .....	1 50
Peach Leaves, <i>Amygdalus Persica</i> .....	1 75	Sweet Gale, <i>Mystica Gale</i> .....	1 50
Peach Pits, " " " ..... 3 00		Tag Alder, <i>Alnus Rubra</i> .....	1 25

# FIRST PREMIUM AWARDED IN 1874.

	Per Pint.	Per Pint.	
Tannaric Bark, <i>Lorice Amer.</i>	2 00	White Oak Bark, <i>Quercus Alba</i>	1 00
Tansy, <i>Tanacetum</i>	1 25	White Poplar Bark, <i>Populus Trem.</i>	1 50
Thimble Weed	1 75	Whitewood Bark, <i>Litodendron</i>	1 25
Thoroughwort, <i>Eupatorium Persol.</i>	1 25	Wiccup, <i>Xiphobriox Pal.</i>	2 50
Thyme, <i>Thymus Vulgaris</i>	1 25	Wild Ginger, <i>Asarum</i>	2 00
Tobacco, <i>Nicotiana Tabac.</i>	2 00	Wild Indigo, <i>Baptisia Tinet.</i>	1 50
Tonka Bean, <i>Dipteris Odorata</i>	3 00	Wild Turnip, <i>Arum Triphy.</i>	1 25
Tomentilla, <i>Potentilla Tormentilla</i>	2 00	Wild Yam, <i>Dioscorea Villosa</i>	1 50
Trailing Arbutus, <i>Epigaea Repens</i>	2 00	Willow Bark, <i>Salix</i>	1 25
Turkey Corn, <i>Corydalis</i>	3 00	Wintergreen, <i>Gaultheria Proc.</i>	1 50
Turnerle, <i>Circum Longa</i>	1 25	Witch Hazel, <i>Hamamelis Virg.</i>	1 50
Twin Leaf, <i>Jeffersonia Diph.</i>	1 50	Wormseed, <i>Chenopodium</i>	1 20
Unicorn Root, <i>Aletris</i>	8 00	Wormwood, <i>Artemesia Absinth.</i>	1 50
Uva Ursi, <i>Arctostaphylos</i>	1 50	Yarrow, <i>Achillea Millefol.</i>	1 25
Valerian, <i>Valerian Offic.</i>	2 00	Yellow Dock, <i>Composit.</i>	1 50
Veratrum Viride	2 50	Yellow Dock, <i>Rumex Crispus</i>	2 00
Vervain, <i>Verbena Offic.</i>	1 25	Yellow Jessamine, <i>Gelsemium</i>	2 50
Wahoo, <i>Euonymus</i>	2 25	Yellow Parilla, <i>Mentisperma Canad.</i>	2 00
Water Pepper, <i>Polygonum Punc.</i>	1 25	Yerba Sauta, <i>Eriodictyon Glutin.</i>	4 50
Watermelon Seed, <i>Cucurbita Citrullis</i>	1 25		

## RESINOIDS.

I am largely engaged in manufacturing these articles, which are neatly put up in bottles containing one ounce, and guaranteed to keep in any climate.

### A Liberal Discount Made, According to Amount Purchased.

Podophyllin, from Mandrake	oz	60	Hematoxyllin	1 00
Leptandrin, from Culver Root	"	65	Humulin, from Hops	1 50
Clinicifugin, from Black Cohosh	"	75	Hydrastine, from Golden Seal	2 50
Maerotin, from Black Cohosh	"	75	Hydrastin, principles Com'l	2 50
Aconitin	"	3 00	Hydrastin, Mur (from 'ly cal'd Hyd'stine)	3 00
Aletrin, from Alocix.	"	2 50	" Nitrate	3 50
Aluin, from Fug Alder	"	1 00	" Sulph	4 00
Atropine	"	3 00	Hyoscyamin, from Henbane	3 50
Anaplopisin, from American Ivy	"	1 25	Irisin, from Blue Flag	1 00
Apocynin, from Dogbane	"	2 00	Jalapin, from Jalap	4 00
Asclepedin, from Pleurisy Root	"	1 50	Juglandin, from Butternut	1 25
Barbitisin, from Wild Indian	"	1 25	Lobelin, from Lobelia	2 60
Barosmin, from Buchu	"	3 00	Leontodin, from Dandelion	1 00
Caulophyllin, from Blue Cohosh	"	80	Lupulin, from Hops	1 00
Cerasin, from Cerasus	"	1 00	Lycopin, from Bugle Weed	1 75
Chelopin, from Balmoney	"	1 75	Menispermin, from Yellow Parilla	1 50
Chymaphyllin	"	1 75	Miricin, from Baberry	1 00
Collusoin, from Stone Root	"	2 00	Panduratin, from Con. Pandu	1 50
Colocynthin, from Colocynth	"	3 00	Phytolacrin, from Gar. or Poke	1 50
Coruin, from Dogwood	"	1 00	Populin from Aspen Pop.	1 00
Corydalin, from Turkey Pea	"	3 00	Prunin, from Wild Cherry	1 00
Cypripedin, from Ladies' Slipper	"	1 75	Ptelein, from Water Ash	2 00
Digitalin, from Foxglove	"	1 50	Rhusin, from Samach	1 23
Dioscorein, from Wild Yam	"	2 00	Rumicin, from Yellow dock	1 25
Eryugin, from Corpseake Root	"	1 25	Sanguinarina, from Blood Root	1 25
Eudonymin, from Wahoo	"	1 75	" Sulph	5 50
Empatorin, from Bonest	"	1 00	Scutelarin, from Skulcap	2 00
Eupurpurin, from Queen Mead	"	2 00	Senecionin, from Life Root	1 50
Frazerin, from Am. Columbo	"	1 25	Smilacin	3 00
Grisamin, from Yellow Jessamin	"	3 00	Stillingin, from Stillingia	2 25
Geranin, from Cranesbill	"	1 05	Trellin, from Bethe-root	1 00
Gillenin, from American Ipecac	"	2 50	Veratrin, from Am. Hellebore	2 50
Gossypin, from Cotton Root	"	1 25	Vorbenin, from Blue Vervain	1 25
Hamamelin, from Witch Hazel	"	1 25	Vibernin, from High Cranberry	2 00
Helonin, from Unicorn Root	"	2 50	Xanthoxyllin, from Prickly Ash	1 50

From New York Druggists' Price Current, April 19, 1871.—

"For some time past our attention has been called to the Pure Inodorous Glycerin of W. J. M. Gordon's, of Cincinnati, and having obtained a bottle of the same from parties who did not know our object, we have submitted Mr. Gordon's Glycerin to several tests, and are happy to state that his Glycerin is, in every particular, what Mr. G. claims—a pure and inodorous article, which we heartily recommend to the trade."

From Chicago Medical Times:

"As a manufacturer of Glycerin, Mr. Gordon is known throughout the civilized world. His pure Glycerin we regard equal to any made. He is now turning out very handsome Sugar-Coated Pills, as well as many other Pharmaceutical Preparations. An immense stock of Botanic goods is a comparatively recent feature in his trade."

### EXTRACT FROM A LETTER.

DEAR SIR:

I do truly think, as far as I have tried your Drugs, they are the best I have ever used, and I have obtained Drugs from all points of the U. S. in the 30 years I have been practicing medicine. Pardon me for saying this personally to you, but your Drugs operate so true and good, and never disappoint me, that I cannot help telling you of it. Please send articles ordered, to the above address.

Yours Truly,

J. F. FORMAN, M. D.

NEWPORT, COKE CO., TENN., October 16th, 1875.

The Following Preparations are Especially Recommended to the Profession.

# MILK OF MAGNESIA

**The Most Effective Aperient and Antacid Known.**

IT IS ESPECIALLY VALUABLE,

**FIRST:** In Disorders of the Stomach, Indigestion, Sick Headache, Nausea, Costiveness, Flatulency.

**SECOND:** To all Complaints of Infancy, whether arising from Indigestion, Imperfect Dentition or Impurity of the Blood.

**THIRD:** As a Laxative, removing causes of Constipation.

**FOURTH:** As a Preventive of Sourness of Food in the Stomach.

**FIFTH:** As the untailing and acceptable remedy for the Nausea incidental to Pregnancy.



## Phospho-Nutritine



A NEW AND IMPORTANT PREPARATION OF THE SOLUBLE WHEAT PHOSPHATES. TONIC, DIGESTIVE, AND HIGHLY NUTRITIVE.

A vitalizing Tonic, superior to all others; entirely devoid of Alcoholic Stimulant; relieving Mental and Physical Prostration. An Agreeable Substitute for Nauseous Drugs and Liquors; more naturally efficient, yet entirely free from their unpleasant effects and disastrous tendencies.

ITS IMMEDIATE AND PERMANENT BENEFICIAL EFFECTS ARE RECOGNIZED  
In Dyspepsia, Consumption, Scrofula, or any Deterioration of the Blood  
In Neuralgia and Nervous Affections.

In Impairment of the Brain, and in complaints that follow Overtaxing the System.

To Members of the Profession, to Merchants, to Students, and to all whose pursuits demand intellectual activity, and therefore draw heavily upon their vital powers, Phospho-Nutritine has proven itself to be the thing desired.

In contrast with other preparations pressed upon the public, as of value in Nervous Affections, it is to be understood that

PHOSPHO-NUTRITINE does not STIMULATE, calling the already enfeebled system to *fur her present vital activity*, only to be followed by *complete exhaustion*; extorting a momentary brilliancy from a dying ember, but that it repairs

PHOSPHO-NUTRITINE ENERGIZES, the waste, quiets the nerves and nourishes the vital powers; *produces and aggregates new strength for future effort.*

## Phillips' Palatable Cod Liver Oil, IN COMBINATION WITH PHOSPHO-NUTRITINE.

*A Pure, Perfect, Pleasant, Powerful Preparation.*

MIXES WITH WATER IN ALL PROPORTIONS, FORMING A MOST PALATABLE AND INVIGORATING DIET.

For use in Consumption, Scrofula and Wasting Diseases.



This combination is a perfect preparation of pure Norwegian Cod Liver Oil, and Phospho-Nutritine, as found in White Wheat, retaining all the remedial and nutritive principles of each, compounded in accordance with scientific principles, under our direct supervision. The Medical Profession, as far as we have been able to reach, have unhesitatingly preferred PHILLIPS' "PALATABLE" for these reasons:

**FIRST:** The abundance of the best Cod Liver Oil in its natural condition, the universally accepted agent in the treatment of Consumption and Emaciation.

**SECOND:** The vitalizing power of Phospho-Nutritine, building up with the Phosphates.

**THIRD:** The absence of *Spontaneous results*, destroying the properties of the oil, making of the stomach a receptacle for soft soap, the more common error in emulsions, particularly those in which Hypophosphites are present.

Confident of the superiority of our preparation, which feeling of confidence has been confirmed by innumerable unsolicited testimonials from most eminent practitioners, we solicit from all interested in the prescription or administration of medicine, an examination into their merits; to assist you in which will be our pleasure, if you will address to us a notice of your desires.

**FOURTH:** The minute subdivision of the oil globules, permitting and demanding its administration with water, assuring thorough assimilation.

**FIFTH:** The absolute disguise, which covers the repugnant taste and smell of the oil, making it acceptable to the most sensitive or fastidious.

**SIXTH:** Its acceptability and retention by all; the stomachs of some, especially jemdes, having rejected all other preparations.

**CHARLES H. PHILLIPS, Manufacturing Chemist,**

**2 and 4 Platt St., New York.**

**Circulars and Samples furnished upon application by mail.**

**In corresponding mention CINCINNATI MEDICAL NEWS.**

To the Medical Profession.

# LACTOPEPTINE

*The most important remedial agent ever presented to the Profession for Indigestion, Dyspepsia, Vomiting in Pregnancy, Cholera Infantum, Constipation, and all diseases arising from imperfect nutrition, containing the five active agents of digestion, viz: Pepsin, Pancreatine, Diastase, or Veg. Ptyalin, Lactic and Hydrochloric Acids, in combination with Sugar of Milk.*

## FORMULA OF LACTOPEPTINE:

Sugar of Milk....40 oz. | Pancreatine .....6 oz. | Lactic Acid.....5 fl. dr.  
Pepsin.....8 oz. | Veg. Ptyalin or Diastase...4 dr. | Hydrochloric Acid...55 fl. dr.

**LACTOPEPTINE** owes its great success solely to the Medical Profession, and is sold almost entirely by Physicians' Prescriptions. Its almost universal adoption by the profession is the strongest guarantee we can give that its therapeutic value has been most thoroughly established.

*The undersigned having tested LACTOPEPTINE, recommend it to the profession:*

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Professor of Orthopedic Surgery and Clinical Surgery,  
Bellevue Hospital Medical College.

A. VAN DEEVER, M. D.,  
Albany, N. Y., June 8<sup>th</sup>, 1878.  
Prof. of the Prin. and Prac. of Surg., Albany Med. Col.; Surg. Albany and St. Peter's Hospitals.

JOHN H. PACKARD, M. D.,  
Philadelphia, Pa., May 30<sup>th</sup>, 1878.  
Pres't Pa. Co. Obstet. Society; Surg. Episcopal and Women's Hospitals;

JAS. AITKEN MEIGS, M. D.,  
Philadelphia, June 20<sup>th</sup>, 1878.  
Prof. of the Institutes of Med. and Med. Juris., Jeff. Medical College; Phy. to Penn. Hos.  
W. W. DAWSON, M. D.,  
Cincinnati, O., June 21<sup>st</sup>, 1878.  
Prof. Prin. and Prac. Surg. Med. Col. of Ohio; Surg. to Good Samaritan Hospital.

ALBERT F. A. KING, M. D.,  
Washington, D. C., June 19<sup>th</sup>, 1878.  
Prof. of Obstetrics, University of Vermont.

D. W. YANDELL, M. D.,  
Louisville, Ky., March 7<sup>th</sup>, 1878.  
Prof. of the Science and Art of Surg., and Clinical Surg., University of Louisville.

ROBT. BATTEY, M. D.,  
Rome, Ga., June 7<sup>th</sup>, 1878.  
Emeritus Prof. of Obstetrics, Atlanta Med. College, and Ex-Pres. Med. Association of Ga.

CLAUDE H. MASTIN, M. D., LL. D.,  
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**PRICE.**  
LACTOPEPTINE (in oz. bottles).....per oz., \$1  
" (in " " ).....per doz., 10  
" (in 1/2 lb. " ).....per lb., 12

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"I have used LACTOPEPTINE with great advantage in cases of feeble digestion."

"I have used LACTOPEPTINE both in hospital and private practice, and have found it to answer fully the purposes for which it is recommended. As an immediate aid to the digestive function, I know of no remedy which acts more directly."

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"I consider LACTOPEPTINE the very best preparation of the kind which I have ever employed, and for patients with feeble digestion I know of nothing which is equal to it."

"I find the preparation of LACTOPEPTINE contains within itself all the principles required to promote a healthy digestion."

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